City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	King County Sewer Stabilization in Coal Creek
Proposal Address:	4551 Coal Creek Parkway SE
Proposal Description:	Land Use approval of a Critical Areas Land Use Permit for King County Wastewater Division to make immediate repairs to stabilize a sewer maintenance hole and infrastructure located in the City of Bellevue Coal Creek Natural Area. Proposed stabilization work will construct four weirs along the left stream bank to direct flows toward the center of the stream and stone protection will be placed around the weirs and sewer infrastructure. Work will occur within and in vicinity of Coal Creek and associated floodplain and three tributary streams all Type-F as well as wetland buffers. Temporary impacts to the City's trailhead parking lot and trails.
File Number:	20-108962-LO
Applicant:	Christopher Dew, King County Wastewater
Decisions Included:	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Reilly Pittman, Land Use Planner
State Environmental Policy Act Threshold Determination:	Determination of Non-Significance issued by King County on June 11, 2020
Director's Decision:	**Approval with Conditions**

By: *Heidi Bedwell, Planning Manager* for
Michael A. Brennan, Director
Development Services Department

Application Date:	May 13, 2020
Notice of Application Publication:	May 21, 2020
Decision Publication Date:	July 2, 2020
Appeal Deadline:	July 16, 2020

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

CONTENTS

Documents in File Referenced in this Report

1. Project Plans
2. Critical Areas Study
3. SEPA Determination of Non-Significance and Environmental Checklist

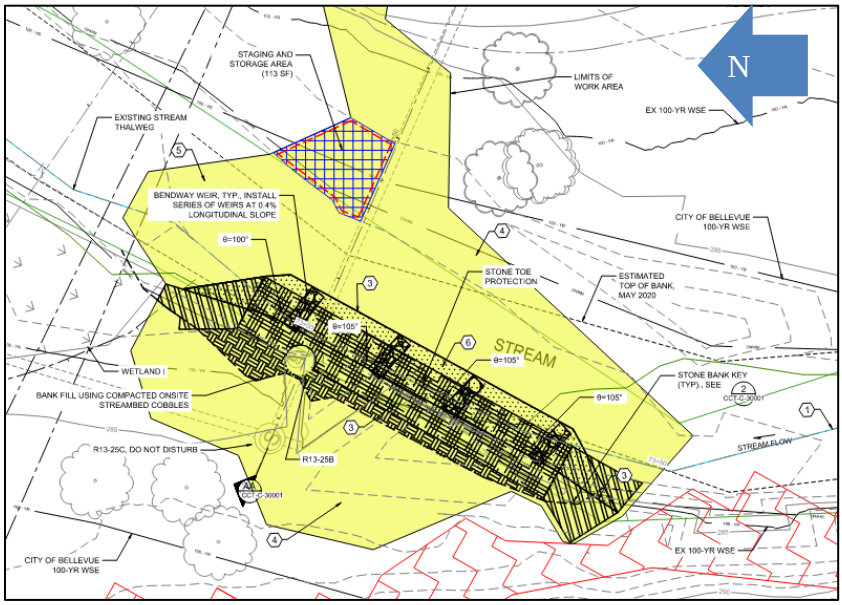
I. Proposal Description

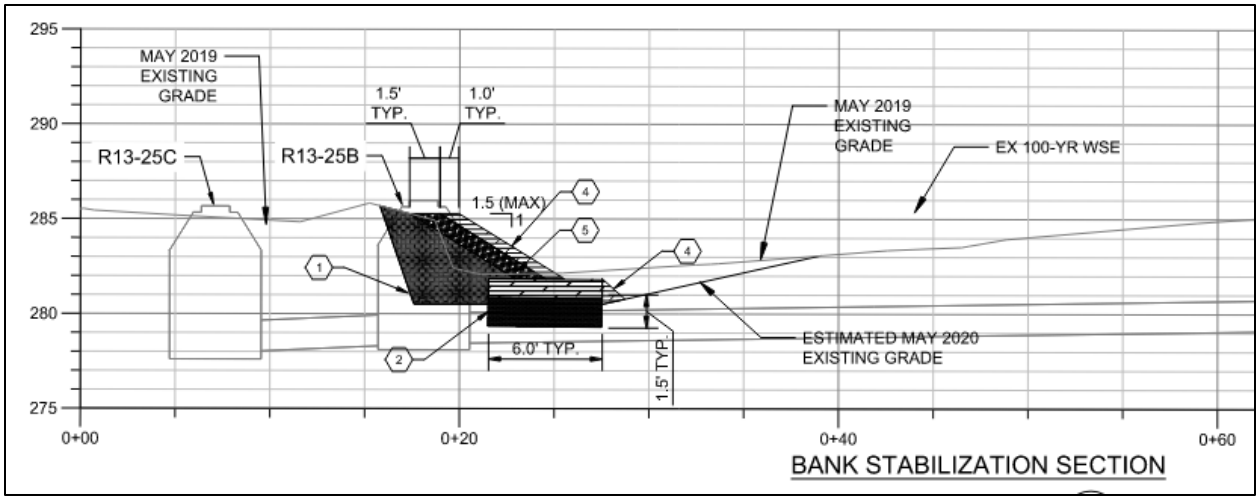
King County Wastewater proposes to carry out immediate repairs to stabilize an existing maintenance hole along their Coal Creek sanitary sewer. King County discovered that significant erosion and scour of the stream bank of Coal Creek has occurred and exposed maintenance hole MH-25B. Without intervention this maintenance hole is at risk of further exposure from continued erosion with the risk that the sewer pipe could fail and release sewage into Coal Creek. The maintenance hole and sewer infrastructure are proposed for future removal as part of the replacement of this sewer system. However, until removal can occur this maintenance hole needs to remain and be maintained.

The proposal will rebuild the eroded stream bank, replant, and stabilize the bank to prevent further erosion. The proposed stabilization will include installation of four weirs along the left bank of the stream to direct the thalweg of Coal Creek towards the center off the stream. The work area is located in the Coal Creek Natural Area near the Coal Creek Trailhead parking lot which is a City of Bellevue Parks Department facility. The proposal will use existing public trails to access and carryout the proposed work which will require temporary closure of a segment of trail and the parking lot for approximately one week, during weekdays.

The proposed use is considered stabilization which is an allowed activity in a critical area per LUC 20.25H.055. Disturbance in a critical area or buffer requires approval of a Critical Areas Land Use Permit and the project is subject to the requirements of the Land Use Code which include alternatives analysis, avoidance and minimization of impacts, and compliance with performance standards. See figure 1 below for proposed stabilization plan.

Figure 1



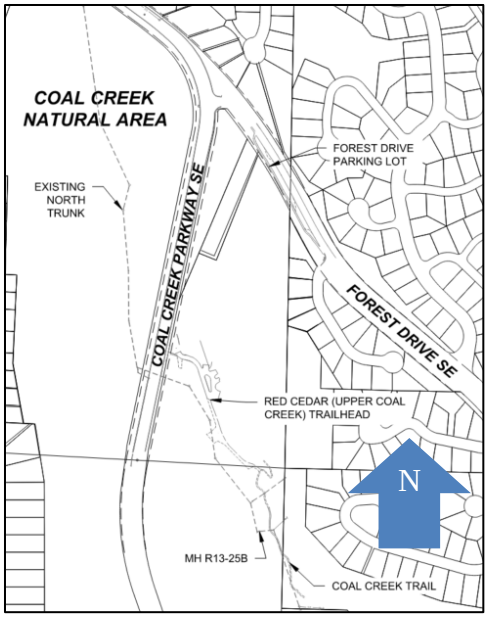


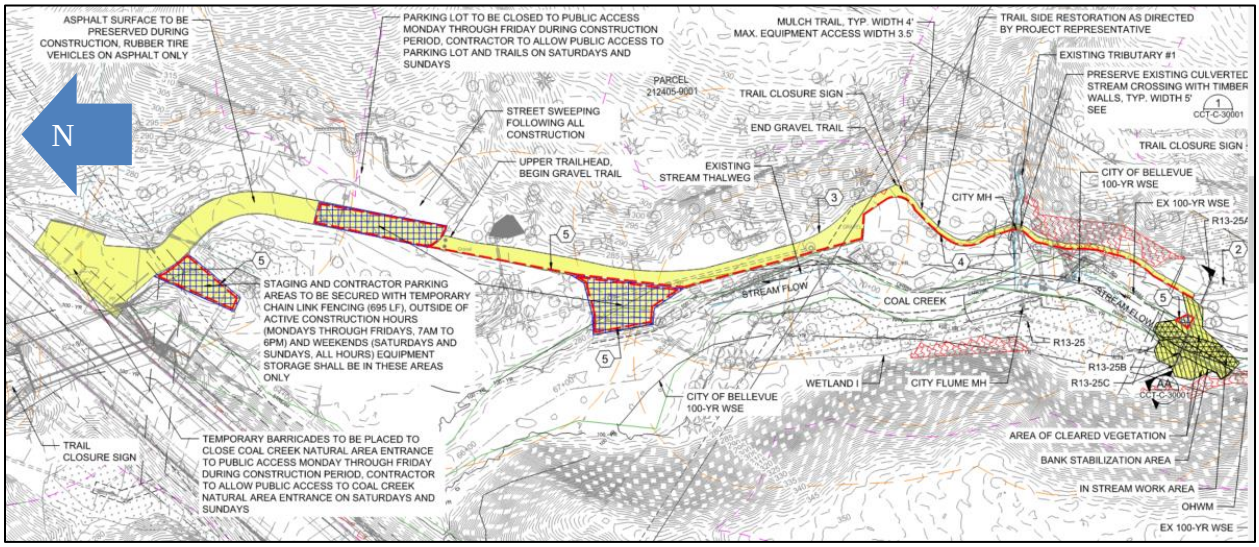
II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project is located in the Coal Creek Natural Area and open space that surrounds Coal Creek and the other associated critical areas that include steep slopes, wetlands, and other stream tributaries. The project area extends south of the trailhead parking lot that is located east of Coal Creek Parkway. Coal Creek and the three tributaries nearby this work area are all Type-F streams. There are three category III wetlands that have buffers that will be temporarily impacted by the proposed work. Coal Creek has a 100-year floodplain and the proposed work will include work in the floodplain. The project area is being accessed from the City's trailhead parking lot that is owned by the Parks Department. The trail from the parking lot to the work area that is parallel to Coal Creek will also be used for access and staging. This parking lot and trail are proposed to be closed Monday through Friday and open on the weekend. The natural area abuts residentially developed properties to the east and the work area is over 200 feet to the east of the work area. See Figure 2 below for work area and location.

Figure 2





B. Zoning

The subject site is zoned R-1 and surrounding properties are zoned single-family residential. The proposal does not affect zoning or change the use of the site as a park.

C. Land Use Context

The site is a park use with a Comprehensive Plan designation of P/SF-L which is Park/Single-Family Low Density. The proposal maintains the existing use and restores the stream channel.

D. Critical Areas Function and Value, Regulations

i. Streams and Riparian Areas

Most of the elements necessary for a healthy aquatic environment rely on processes sustained by dynamic interaction between the stream and the adjacent riparian area (Naiman et al., 1992). Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization (Finkenbine et al., 2000 in Bolton and Shellberg, 2001). Riparian areas support healthy stream conditions.

Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature (Brazier and Brown, 1973; Corbett and Lynch, 1985).

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams (Ecology, 2001; City of Portland 2001). The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods (Novitzki, 1979; Verry and Boelter, 1979 in Mitsch and Gosselink, 1993). Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi-canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species (McMillan, 2000). Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or revegetated (May 2003). Until the newly planted buffer is established the near term goals for buffer functions may not be attained.

Riparian areas often have shallow groundwater tables, as well as areas where groundwater and surface waters interact. Groundwater flows out of riparian wetlands, seeps, and springs to support stream baseflows. Surface water that flows into riparian

areas during floods or as direct precipitation infiltrates into groundwater in riparian areas and is stored for later discharge to the stream (Ecology, 2001; City of Portland, 2001).

ii. Wetlands

Wetlands provide important functions and values for both the human and biological environment—these functions include flood control, water quality improvement, and nutrient production. These "functions and values" to both the environment and the citizens of Bellevue depend on their size and location within a basin, as well as their diversity and quality. While Bellevue's wetlands provides various beneficial functions, not all wetlands perform all functions, nor do they perform all functions equally well (Novitski et al., 1995). However, the combined effect of functional processes of wetlands within basins provides benefits to both natural and human environments. For example, wetlands provide significant stormwater control, even if they are degraded and comprise only a small percentage of area within a basin.

iii. Floodplain

The value of floodplains can be described in terms of both the hydrologic and ecological functions that they provide. Flooding of occurs when either runoff exceeds the capacity of rivers and streams to convey water within their banks, or when engineered stormwater systems become overwhelmed. Studies have linked urbanization with increased peak discharge and channel degradation (Dunne and Leopold 1978; Booth and Jackson 1997; Konrad 2000). Floodplains diminish the effects of urbanization by temporarily storing water and mediating flow to downstream reaches. The capacity of a floodplain to buffer upstream fluctuations in discharge may vary according to valley confinement, gradient, local relief, and flow resistance provided by vegetation. Development within the floodplain can dramatically affect the storage capacity of a floodplain, impact the hydrologic regime of a basin and present a risk to public health and safety and to property and infrastructure.

iv. Habitat

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005, Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a). Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States, yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level

of development (Blair 1999, Marzluff 2005).Protected wild areas alone cannot be depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding, colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

III. Consistency with Code Requirements:

A. Zoning District Dimensional Requirements LUC 20.20.010:

The proposal to stabilize a stream bank and utility infrastructure is not subject to the zoning dimensional requirements in LUC 20.20.010. The proposal will require a clearing and grading permit. **See Section X for a condition of approval related to clearing and grading.**

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes standards and procedures that apply to construction of improvements on any site which contains in whole or in part any portion designated as critical area or critical area buffer. The proposed stabilization repair of the stream bank and utility infrastructure will cause disturbance to the stream channel and overlapping wetland and stream buffers surrounding the work area. The proposal is subject to the following code requirements.

i. Consistency with LUC 20.25H.055.C.2.a

New or expanded facilities and systems are allowed within the critical area or critical area buffer only where no technically feasible alternative with less impact on the critical area or critical area buffer exists. A determination of technically feasible alternatives will consider:

1. The location of existing infrastructure;

The existing sewer line is located adjacent to Coal Creek. The stream bank has eroded which places the maintenance hole within the stream. The utility line is not proposed to be relocated and must remain in place. The proposed stabilization repairs are to avoid a failure of the sewer infrastructure.

2. The function or objective of the proposed new or expanded facility or system;

The proposed stabilization repairs are to avoid a failure of the sewer infrastructure and

ensure the sewer is operational until it is removed under a future separate project to upgrade the sewer.

3. **Demonstration that no alternative location or configuration outside of the critical area or critical area buffer achieves the stated function or objective, including construction of new or expanded facilities or systems outside of the critical area;**

   Given the existing sewer line cannot be relocated there is no alternative to location. Alternative configuration that incorporates softer stabilization methods was considered but options are limited as heavy equipment is not proposed to be used given trail access is four feet wide. The repair must occur during this summer's fish window. The proposed alternative for hard stabilization will be removed in a few years' time as part of the replacement of this sewer.

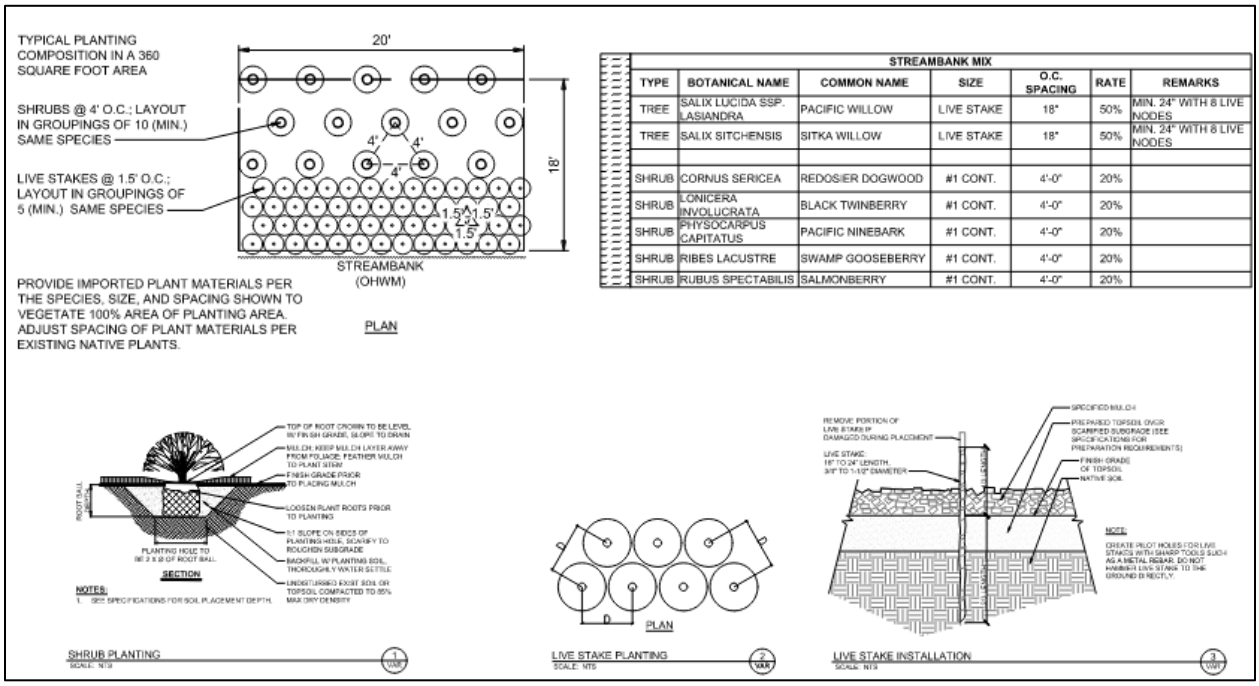
4. **Whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of proposed disturbance; and**

   The risk to the environment from a sewer failure is disproportionate to the avoidance and minimization that could be achieved through incorporation of a softer design that would more expensive and delay the stabilization of this important infrastructure.

5. **The ability of both permanent and temporary disturbance to be mitigated.**

   All temporary impacts from construction are proposed to be restored. No tree removal is required for this work. Impacts are avoided and minimized by accessing and staging from the existing parking lot and trail. No permanent impacts are proposed. The proposal will reconstruct the eroded stream bank and provide planting on the new stream bank. See figure 3 below for a typical planting plan. It should be noted that this restoration will likely be removed, and this entire area restored as part of the larger plan to replace the existing King County sewer in Coal Creek. While the submitted plans note that no mitigation is provided the proposal will restore and replant a stream bank. The monitoring noted in the submitted plans must include monitoring and maintenance of the planting proposed. **See Section X for a condition of approval related to restoration and monitoring.**

Figure 3



STREAMBANK MIX

TYPE	BOTANICAL NAME	COMMON NAME	SIZE	O.C. SPACING	RATE	REMARKS
TREE	SALIX LUCIDA SSP. LASIANDRA	PACIFIC WILLOW	LIVE STAKE	18"	50%	MIN. 24" WITH 8 LIVE NODES
TREE	SALIX SITCHENSIS	SITKA WILLOW	LIVE STAKE	18"	50%	MIN. 24" WITH 8 LIVE NODES
SHRUB	CORNUS SERICEA	REDOSIER DOGWOOD	#1 CONT.	4'-0"	20%	
SHRUB	LONICERA INVOLUCRATA	BLACK TWINBERRY	#1 CONT.	4'-0"	20%	
SHRUB	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	#1 CONT.	4'-0"	20%	
SHRUB	RIBES LACUSTRE	SWAMP GOOSEBERRY	#1 CONT.	4'-0"	20%	
SHRUB	RUBUS SPECTABILIS	SALMONBERRY	#1 CONT.	4'-0"	20%	

ii. Consistency with LUC 20.25H.055.C.2.b

If the applicant demonstrates that no technically feasible alternative with less impact on the critical area or critical area buffer exists, then the applicant shall comply with the following**:**

1. Location and design shall result in the least impacts on the critical area or critical area buffer.

The proposal reduces impacts from construction by accessing and staging from existing parking lot and trail. The proposed stabilization is the alternative with the least impact that can be achieved in the limited time available so that this work can be carried out during the current fish window this summer.

2. Disturbance of the critical area and critical area buffer, including disturbance of vegetation and soils, shall be minimized.

The stream bank has been eroded and the bank is proposed to be restored and replanted with native vegetation that will not increase impacts. Stone weirs and protection is proposed to ensure that this sewer facility is protected for the few years it has remaining before it is removed as part of the future plan to replace this sewer system. The only disturbance proposed will be temporary and within the stream which will be limited by exclusion and dewatering of the area as well as working during the summer when water levels are lowest.

3. **Disturbance shall not occur in habitat used for salmonid rearing or spawning or by any species of local importance unless no other technically feasible location exists.**

   Work is proposed within the stream of Coal Creek, which is a stream with salmonid species use. Any disturbance of the stream is temporary and will occur during allowed fish work windows. Based on the location of the sewer and the risk of failure there is no alternative that can avoid disturbance within the stream or be carried out in the limited time available.

4. **Any crossing over of a wetland or stream shall be designed to minimize critical area and critical area buffer coverage and critical area and critical area buffer disturbance, for example by use of bridge, boring, or open cut and perpendicular crossings, and shall be the minimum width necessary to accommodate the intended function or objective; provided, that the Director may require that the facility be designed to accommodate additional facilities where the likelihood of additional facilities exists, and one consolidated corridor would result in fewer impacts to the critical area or critical area buffer than multiple intrusions into the critical area or critical area buffer.**

   No crossings are proposed.

5. **All work shall be consistent with applicable City of Bellevue codes and standards.**

   The proposed project will comply with City of Bellevue codes and standards.

6. **The facility or system shall not have a significant adverse impact on overall aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod.**

   The project will not impact flows and will result in a restoration of the stream bank that eroded away. There is no rise of the base flood elevation which was documented by the project engineer.

7. **Associated parking and other support functions, including, for example, mechanical equipment and maintenance sheds, must be located outside critical area or critical area buffer except where no feasible alternative exists.**

   The proposal is to make repairs and stabilize the stream bank in order to protect existing sewer infrastructure that is within the stream buffer. No new sewer functions

or parking are proposed.

8. **Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.**

   Minimal disturbance is proposed. Any temporary disturbance is required to be restored per the submitted planting plan for the stream bank restoration. **See Section X for a condition of approval related to restoration of temporary disturbance.**

iii. Consistency with LUC 20.25H.080 and LUC 20.25H.100

Development on sites with a type S or F stream, wetlands, or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable

1. **Lights shall be directed away from the stream.**

   No lighting is proposed.

2. **Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the stream, or any noise shall be minimized through use of design and insulation techniques.**

   Construction noise will be temporary, and no long-term noise will be generated from the completed stabilization. The project will be required to meet construction noise requirements in BCC 9.18.

3. **Toxic runoff from new impervious area shall be routed away from the stream.**

   No new impervious surfaces are created, and no toxic runoff will be generated.

4. **Treated water may be allowed to enter the stream critical area buffer.**

   The project will not generate water that needs to be treated.

5. **The outer edge of the stream critical area buffer shall be planted with dense vegetation to limit pet or human use.**

   The stream bank that eroded and being reconstructed will be restored with native planting per the submitted plans.

6. **Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the**

stream critical area buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices", now or as hereafter amended. S60-Wilburton Sewer Capacity Upgrade Project 29 City of Bellevue - Critical Areas Report

Any use of these products will be consistent with the BMPs already employed by the City's Parks Department and verified through the permitting required by the Parks Department for this use.

iv. Consistency with LUC 20.25H.180

The stream bank stabilization is within the 100 year floodplain. No new structures are proposed, and some placement of fill and rock is proposed to rebuild the stream bank and protect from further erosion. Based on analysis provided by the project engineer, the project will not result in a rise of the base flood elevation. Review of a habitat assessment for conformance with the Endangered Species Act will be done as part of federal permit review as the floodplain is entirely within federal jurisdiction.

IV. Public Notice and Comment

Application Date:	May 13, 2020
Public Notice (500 feet):	May 21, 2020
Minimum Comment Period:	June 4, 2020

The Notice of Application for this project was published in the City of Bellevue Weekly Permit Bulletin and the Seattle Times on May 21, 2020. Notice was also mailed to property owners within 500 feet of the project site. No comments were received.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the proposal for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff approved the application. A clearing and grading permit is required and the work is subject to allowed work windows for fish and rainy season.

B. Utilities

The City's Utility Department reviewed and approved the proposal. Any future Utilities permit applications must comply with Bellevue Codes 24.02, 24.04 and 24.06.

VI. State Environmental Policy Act (SEPA)

SEPA review of the proposal was conducted by King County as SEPA Lead Agency. A Determination of Non-Significance was issued by King County on June 11, 2020.

VII. Changes to Proposal Due to Staff Review

The applicant provided additional information to show project compliance with city codes and floodplain requirements.

VIII. Decision Criteria

A. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria

The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code;**

   The applicant must obtain approval of clearing and grading permit 20-109977-GD. The clearing and grading permit must reference this approval. **See Section X for a condition of approval related to permits required.**

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;**

   The project utilizes the best available construction techniques to have the least impact on critical areas and buffers as possible. No new permanent impacts are proposed by the project and the eroded stream bank is proposed to be rebuilt and replanted. Construction staging is located within the trail to the maximum extent. No trees are proposed for removal. Construction will take place in the dry season and during in-water work windows. All areas of temporary disturbance are proposed to be restored following construction.

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and;**

   As discussed in Section III of this report performance standards will be met.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**

   The proposed project will maintain the existing sewer system.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**

   Areas of temporary disturbance will be restored, and planting is proposed on the rebuilt

stream bank. **See Section X for a related condition of approval.**

6. **The proposal complies with other applicable requirements of this code.**

   As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of Development Services Department does hereby **approve with conditions** the proposal to stabilize an existing maintenance hole, rebuild the eroded stream bank, and replant the bank with native vegetation in and adjacent to Coal Creek. **A Clearing and Grading permit is required, and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

Note- Expiration of Approval of Critical Areas Land Use Permit: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a clearing and grading permit or other necessary development permits within one year of the effective date of the approval.

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code – BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code – BCC Title 20	Reilly Pittman, 425-452-4350
Noise Control – BCC 9.18	Reilly Pittman, 425-452-2973

The following conditions are imposed under the Bellevue City Code authority referenced:

1. **Clearing and Grading Permit:** Approval of this Critical Areas Land Use Permit does not constitute an approval of any construction permit. Grading permit 20-109977-GD for project clearing and grading is required to be approved before construction can begin. Plans submitted as part of any permit application shall be consistent with the activity permitted under this approval. A copy of the Hydraulic Project Approval granted by WDFW is required prior to issuance of the clearing and grading permit.

   Authority: Land Use Code 20.30P.140; Clearing & Grading Code 23.76.035

Reviewer: Savina Uzunow, Clearing & Grading Section

2. **Fish Window and Rainy Season and Restrictions:** The work must be done within the Fish window and may not occur during the rainy season, which is defined as October 1 through April 30.

   Authority: Bellevue City Code 23.76.093.A,
   Reviewer: Savina Uzunow, Clearing & Grading Section

3. **Obtain all Other Applicable State and/or Federal Permits:** Before work can proceed, all required federal and state permits and approvals must be obtained by the applicant and submitted to the City under the clearing and grading permit.

   Authority: Land Use Code 20.25H.080
   Reviewer: Reilly Pittman, Development Services Department

4. **Restoration of Temporary Disturbance:** All temporary disturbance is required to be restored. Any temporary disturbance shall be restored using the plants noted on the restoration plan for the stream bank or using other appropriate native plants. Planting plans submitted with the required clearing and grading permit shall be consistent with plans submitted as part of this application.

   Authority: Land Use Code 20.30P.140; 20.25H.220
   Reviewer: Reilly Pittman, Development Services Department

5. **Maintenance and Monitoring:** The maintenance and monitoring of the stabilization must include the proposed planting on the stream bank. Details regarding the maintenance and monitoring of the stream bank restoration are required to be provided prior to issuance of the clearing and grading permit.

   Authority: Land Use Code 20.30P.140; 20.25H.220
   Reviewer: Reilly Pittman, Development Services Department

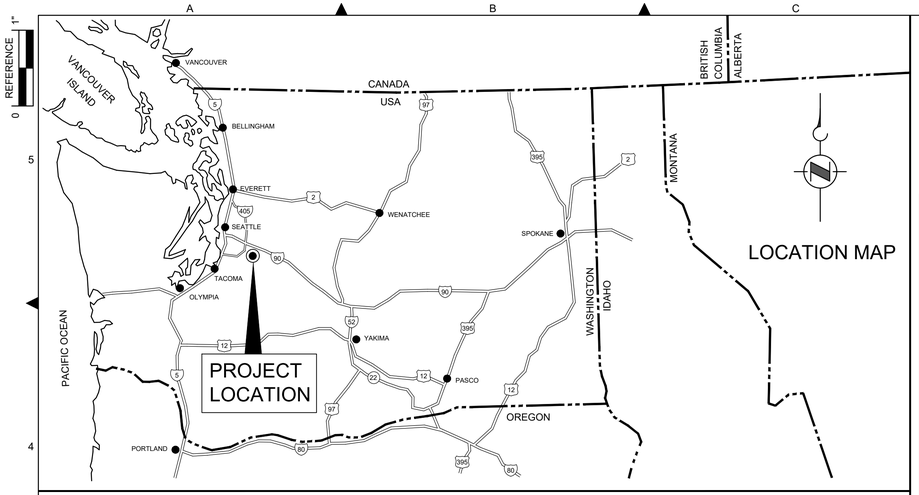
COAL CREEK TRUNK
MH25B PROTECTION

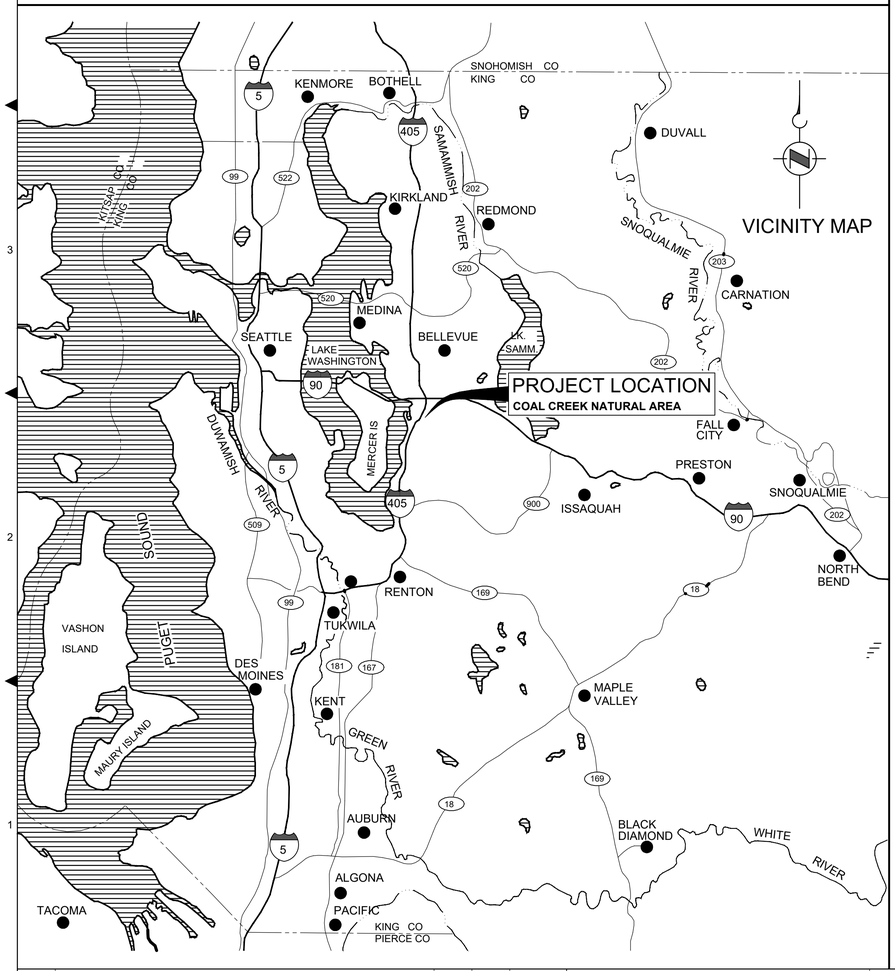
FACILITY NUMBER: CCT900

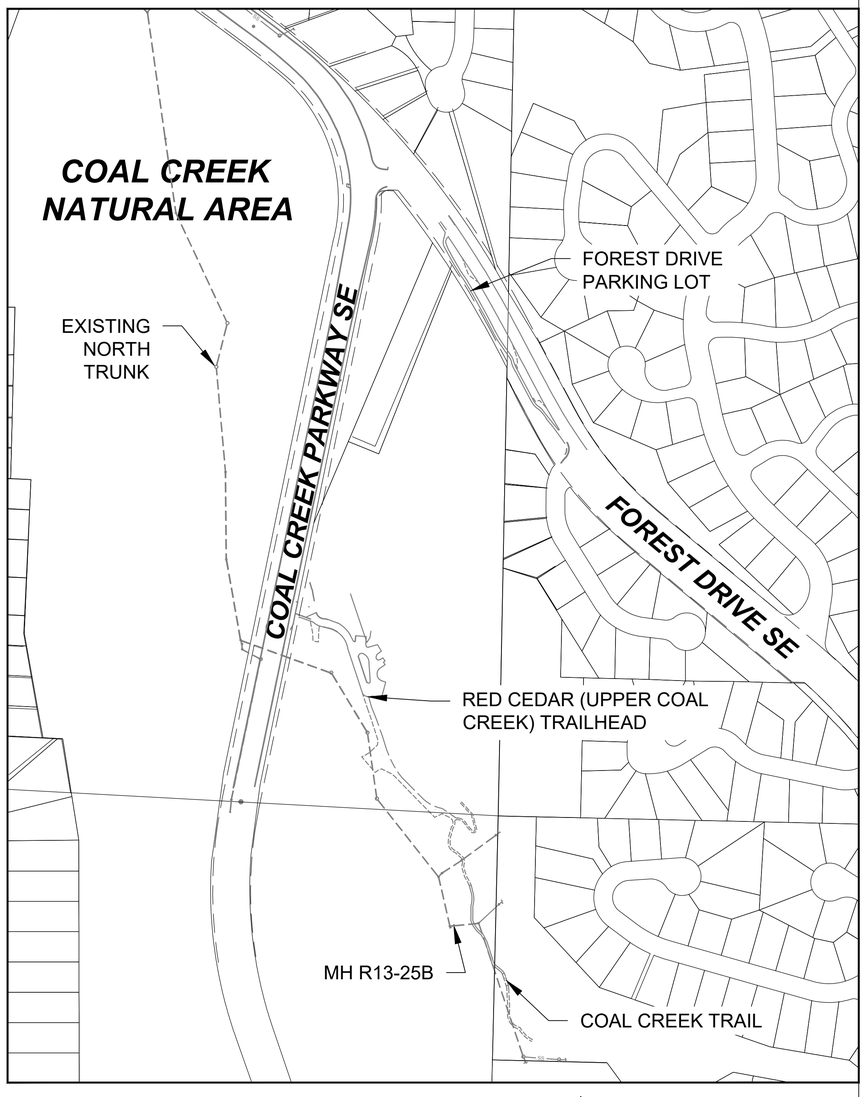
CONTRACT NUMBER: CXXXXXCXX

PERMIT ISSUE **JUNE 2020**

KING COUNTY
Department of Natural Resources and Parks
Wastewater Treatment Division







SITE MAP

SCALE: 1" = 200'

DRAWING INDEX

GENERAL

SHT #	DWG #	DRAWING NAME
1	CCT-G-00000	COVER SHEET
2	CCT-G-00001	VICINITY MAP, LOCATION MAP AND GENERAL SYMBOLS

CIVIL

SHT #	DWG #	DRAWING NAME
3	CCT-C-10001	SITE OVERVIEW AND TESC PLAN
4	CCT-C-10002	SITE PLAN AND TESC PLAN
5	CCT-C-30001	DETAILS

LANDSCAPING

SHT #	DWG #	DRAWING NAME
6	CCT-L-41000	LANDSCAPE DETAILS AND SCHEDULE

REFERENCE SYMBOLS

SECTION CUTS: A-A / A2240502

ELEVATIONS: A-A / A2240502

DETAILS: 1 / M2240101

NORTH INDICATING ARROW:

VIEW TITLE CROSS REFERENCING:

SECTION A
SCALE: 1/4"=1'-0" M2240101

UNREFERENCED CALLOUT:

SITE PLAN
SCALE: 1/8"=1'-0"

ACRONYMS

CR	CRUSH AND RUN
CY	CUBIC YARDS
EL	ELEVATION
EX 100-YR WSE	EXISTING 100-YEAR WATER SURFACE ELEVATION
LF	LINEAR FEET
OHWM	ORDINARY HIGH WATER MARK
SQ FT	SQUARE FEET
TYP	TYPICAL

NO	REVISION DESCRIPTION	BY	APVD	DATE

Brown AND Caldwell | Jacobs
AND ASSOCIATED FIRMS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
PERMIT ISSUE REVIEW

NICHOLAS VANBLERCKEN
STATE OF WASHINGTON
51132
REGISTERED
PROFESSIONAL ENGINEER

DESIGNED/DRAWN: M. ZUERCHER	CHECKED: S. CLAYTON
PROJECT ENGINEER: K. HAMBLEN	SCALE: AS NOTED
DESIGN APPROVAL: J. PAULSON	PROJECT FILE NO:
PROJECT ACCEPTANCE: R. JOHNSON	CONTRACT NO:

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
COAL CREEK TRUNK MH25B PROTECTION

VICINITY MAP, LOCATION MAP AND GENERAL SYMBOLS

DATE: JUNE 2020
DRAWING NO: CCT-G-00001
SHT NO 2 / TOTAL 6 | REV NO: 0

BORDER FILE EDITION: KCWTD-2016R0-Dsize-TB-Border
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GENERAL NOTES

1. THERE ARE NO SEISMIC HAZARDS, LANDSLIDE HAZARDS OR COAL MINE HAZARDS WITHIN THE WORK LIMITS. THERE ARE ALSO NO TOP-OF-SLOPE BUFFERS AS STEEP SLOPES EXTEND UPSLOPE OF WORK LIMITS.
2. ENTIRE WORK AREA IS DESIGNATED BY WDFW PRIORITY HABITAT AND SPECIES PROGRAM AS A BIODIVERSITY CORRIDOR.
3. STEEP SLOPE AREAS EXTEND OUTSIDE OF PROJECT AREA
4. INVASIVE SPECIES MANAGEMENT: FOR PROJECT THAT INCLUDES WORK AROUND LAKES, STREAMS, STREAMBANKS, OR WETLANDS, THE FOLLOWING PROTOCOLS WILL APPLY:
   a. NEW ZEALAND MUDSNAILS (POTAMOPYRGUS ANTIPODARUM) HAVE BEEN DETECTED IN STREAMS WITHIN THE CITY OF BELLEVUE. TO PREVENT THE SPREAD OF THIS INVASIVE SPECIES IN ACCORDANCE WITH RCW 77.135 AND 77.15.811, ALL STREAM PROJECTS SHALL MEET THE FOLLOWING REQUIREMENTS:
      a.a. CONTRACTORS SHALL ENSURE THAT ALL EQUIPMENT IS CLEAN AND DECONTAMINATED OF ANY POTENTIAL INVASIVE SPECIES PRIOR AND AFTER WORKING IN BELLEVUE STREAMS.
      a.b. EQUIPMENT WITH MUD OR DEBRIS SHALL NOT BE ALLOWED TO BE DEPLOYED.
   b. WORKERS SHALL FOLLOW THE PROCEDURES IN THE WASHINGTON DEPARTMENT OF FISH AND WILDLIFE INVASIVE SPECIES MANAGEMENT PROTOCOLS. VERSION 3 - FEBRUARY 2016 (OR THE LATEST VERSION OF THIS DOCUMENT)
   c. ALL EQUIPMENT SHALL BE QUARANTINED IN AN AREA WHERE MUD, DEBRIS, OR WATER CANNOT BE TRACKED INTO OTHER STREAMS OR STORM DRAINAGE CATCH BASINS.
   d. ALL EQUIPMENT SHALL BE BRUSHED OR SPRAYED ON-SITE SO NO INVASIVE SPECIES CAN BE DISLODGED DURING TRANSPORT PRIOR TO FULL DECONTAMINATION. THE ON-SITE CLEANING SHALL OCCUR IN A WAY THAT MUD, DEBRIS, OR WATER CANNOT BE TRACKED INTO OTHER STREAMS OR STORM DRAINAGE CATCH BASINS. ALL EQUIPMENT SHALL BE DECONTAMINATED AT A SITE THAT DRAINS TO WASTEWATER (SUCH AS A COMMERCIAL CAR WASH) PRIOR TO USE IN OTHER STREAMS.
5. THE EXISTING 100-YEAR WATER SURFACE ELEVATION (EX 100-YR WSE) IS BASED ON UPDATED HYDRAULIC MODELING AND IS USED IN PLACE OF THE FEMA-DESIGNED 100-YEAR FLOODPLAIN
6. TEMPORARY PLASTIC COVERING (BMP C123) SHALL BE PROVIDED TO PROTECT ALL SEDIMENT STOCKPILES AT THE END OF EACH WORK DAY OR IF SIGNIFICANT PRECIPITATION IS EXPECTED
7. COORDINATE WITH THE PROJECT REPRESENTATIVE DURING CONSTRUCTION TO DIRECT PLACEMENT OF MATERIALS
8. DRAWING IS IN COLOR

KEY NOTES

1. SURROUNDING LiDAR FROM WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES, 2016. STREAM TOPOGRAPHIC AND BATHYMETRIC SURVEY COMPLETED MAY, 2019.
2. EXISTING SEWER TRUNK. DO NOT DISTURB.
3. GRAVEL TRAIL RESTORATION (420 LF) WITH COMPACTED 5/8" MINUS C.R. 6" BASE COURSE (102 CY) AND COMPACTED 2" DEPTH 3/8" MINUS C.R. TOP COURSE (34 CY). FILTER FABRIC TO BE INSTALLED BETWEEN COURSES.
4. MULCH TRAIL RESTORATION (300 LF) WITH COMPACTED NATIVE SOIL BASE COURSE AND COMPACTED 4" DEPTH MEDIUM WOODCHIPS/BARK TOP COURSE (19 CY). FILTER FABRIC TO BE INSTALLED BETWEEN COURSES.
5. STRAW WATTLES REQUIRED FOR PERIMETER OF STAGING AREA STOCKPILES AND ALONG TRAIL (1415 LF)

ASPHALT SURFACE TO BE PRESERVED DURING CONSTRUCTION, RUBBER TIRE VEHICLES ON ASPHALT ONLY

PARKING LOT TO BE CLOSED TO PUBLIC ACCESS MONDAY THROUGH FRIDAY DURING CONSTRUCTION PERIOD, CONTRACTOR TO ALLOW PUBLIC ACCESS TO PARKING LOT AND TRAILS ON SATURDAYS AND SUNDAYS

STREET SWEEPING FOLLOWING ALL CONSTRUCTION

UPPER TRAILHEAD, BEGIN GRAVEL TRAIL

MULCH TRAIL, TYP. WIDTH 4' MAX. EQUIPMENT ACCESS WIDTH 3.5'

TRAIL SIDE RESTORATION AS DIRECTED BY PROJECT REPRESENTATIVE

EXISTING TRIBUTARY #1

PRESERVE EXISTING CULVERTED STREAM CROSSING WITH TIMBER END WALLS, TYP. WIDTH 5' SEE 1 CCT-C-30001

PARCEL 212405-9001

TRAIL CLOSURE SIGN

END GRAVEL TRAIL

EXISTING STREAM THALWEG

TRAIL CLOSURE SIGN

CITY OF BELLEVUE 100-YR WSE

CITY MH

EX 100-YR WSE

R13-25A

STAGING AND CONTRACTOR PARKING AREAS TO BE SECURED WITH TEMPORARY CHAIN LINK FENCING (695 LF), OUTSIDE OF ACTIVE CONSTRUCTION HOURS (MONDAYS THROUGH FRIDAYS, 7AM TO 6PM) AND WEEKENDS (SATURDAYS AND SUNDAYS, ALL HOURS) EQUIPMENT STORAGE SHALL BE IN THESE AREAS ONLY

STREAM FLOW

COAL CREEK

STREAMFLOW

R13-25

R13-25B

R13-25C

AA CCT-C-30001

TRAIL CLOSURE SIGN

TEMPORARY BARRICADES TO BE PLACED TO CLOSE COAL CREEK NATURAL AREA ENTRANCE TO PUBLIC ACCESS MONDAY THROUGH FRIDAY DURING CONSTRUCTION PERIOD, CONTRACTOR TO ALLOW PUBLIC ACCESS TO COAL CREEK NATURAL AREA ENTRANCE ON SATURDAYS AND SUNDAYS

CITY OF BELLEVUE 100-YR WSE

WETLAND I

CITY FLUME MH

AREA OF CLEARED VEGETATION

BANK STABILIZATION AREA

IN STREAM WORK AREA

OHWM

EX 100-YR WSE

LEGEND

- EXISTING LARGE WOODY MATERIAL
- EXISTING WETLAND
- STEEP SLOPE AREA
- WETLAND BUFFER OUTLINE
- STREAM BUFFER OUTLINE
- ORDINARY HIGH WATER MARK (FROM 2019 SURVEY)
- CONSTRUCTION ACCESS, BORDERED BY ORANGE CN FENCE (913 LF)
- STAGING AREA (TOTAL FOR 4 STAGING AREAS, 6380 SF)
- STRAW WATTLES FOR SEDIMENT BARRIER
- AREA OF CLEARED VEGETATION
- IN STREAM AREA

0 40 80 120
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

Brown AND Caldwell | Jacobs
AND ASSOCIATED FIRMS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
PERMIT ISSUE REVIEW

NICHOLAS VANBRUCKEN — STATE OF WASHINGTON — 51132 — REGISTERED PROFESSIONAL ENGINEER

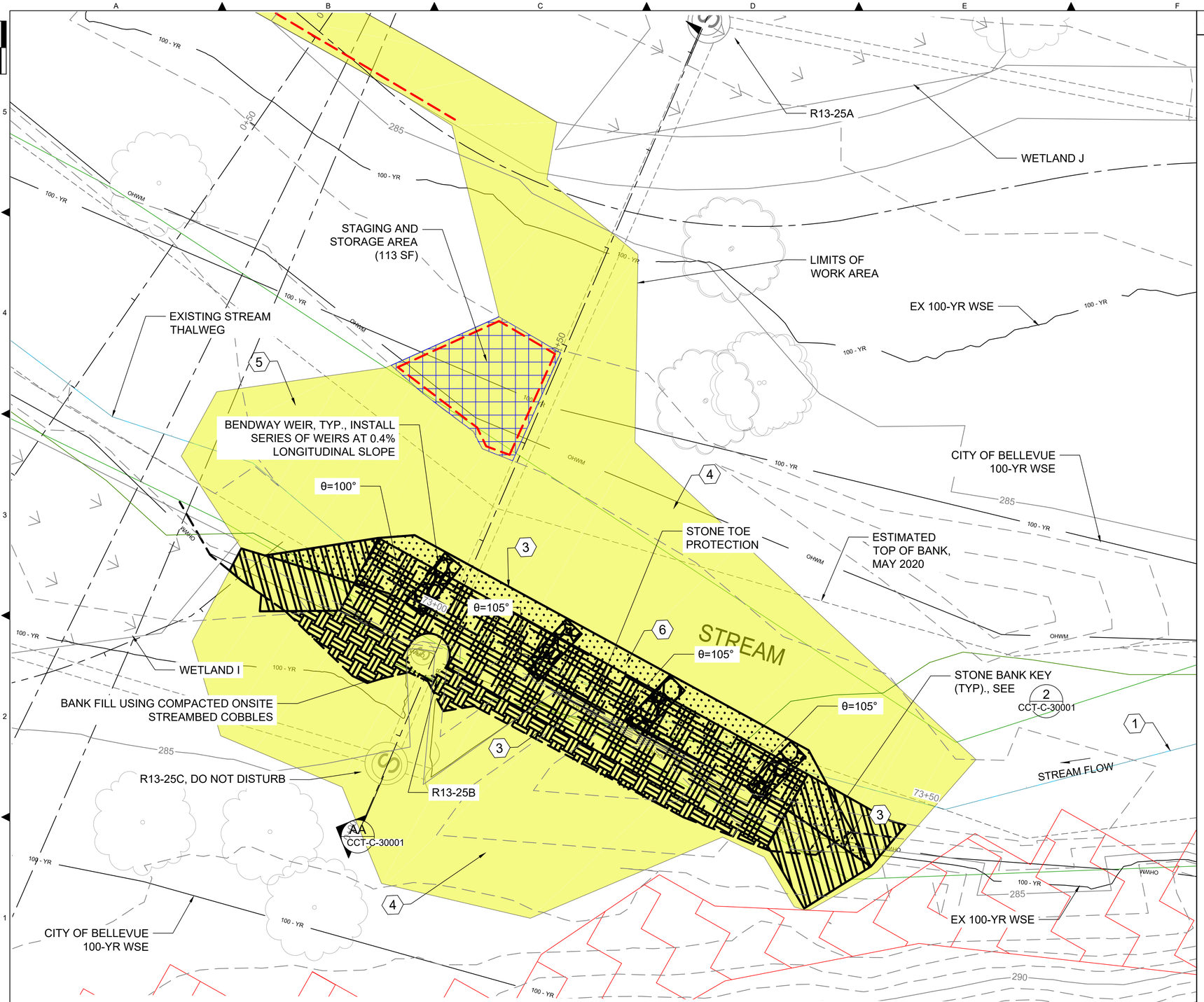
DESIGNED/DRAWN: M. ZUERCHER	CHECKED: S. CLAYTON
PROJECT ENGINEER: K. HAMBLEN	SCALE: AS NOTED
DESIGN APPROVAL: J. PAULSON	PROJECT FILE NO:
PROJECT ACCEPTANCE: R. JOHNSON	CONTRACT NO:

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
COAL CREEK TRUNK MH25B PROTECTION

SITE OVERVIEW AND TESC PLAN

DATE: JUNE 2020
DRAWING NO: CCT-C-10001
SHT NO 3 / TOTAL 6 | REV NO: 0



GENERAL NOTES

1. THERE ARE NO SEISMIC HAZARDS, LANDSLIDE HAZARDS OR COAL MINE HAZARDS WITHIN THE WORK LIMITS. THERE ARE ALSO NO TOP-OF-SLOPE BUFFERS AS STEEP SLOPES EXTEND UPSLOPE OF WORK LIMITS.

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7. COORDINATE WITH THE PROJECT REPRESENTATIVE DURING CONSTRUCTION TO DIRECT PLACEMENT OF MATERIAL

8. DRAWING IS IN COLOR

KEY NOTES

1. SURROUNDING LiDAR FROM WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES, 2016. STREAM TOPOGRAPHIC AND BATHYMETRIC SURVEY COMPLETED MAY, 2019.

2. EXISTING SEWER TRUNK. DO NOT DISTURB.

3. STONE TOE PROTECTION, STONE BED KEYS, AND STONE BANK KEYS WITH EXPOSED WSDOT STD. 9-13. CLASS A ROCK FOR EROSION AND SCOUR PROTECTION SHALL BE COVERED WITH 1' THICK COURSE OF STREAMBED COBBLES FOR AQUATIC HABITAT

4. AREA OF CLEARED VEGETATION (UP TO 1795 SQ FT) TO BE RESTORED FOLLOWING CONSTRUCTION WITH NATIVE VEGETATION. SEE SHEET CCT-L-41000

5. IN STREAM WORK AREA (993 SQ FT), BEYOND STABILIZATION WORK PRESERVE STREAM CHANNEL USING TIMBER MATS

6. STONE BED KEY, INSTALL TOP OF KEY FLUSH WITH AVERAGE THALWAG BED AT APPROX. 0.4% LONGITUDINAL SLOPE

LEGEND

- EXISTING LARGE WOODY MATERIAL
- EXISTING WETLAND
- STEEP SLOPE AREA
- WETLAND BUFFER OUTLINE
- STREAM BUFFER OUTLINE
- ORDINARY HIGH WATER MARK (FROM 2019 SURVEY)
- ESTIMATED TOP OF BANK, MAY 2020
- CONSTRUCTION ACCESS BORDERED BY ORANGE CN FENCE
- STONE TOE PROTECTION
- STONE BANK KEY
- BANK FILL
- BENDWAY WEIR
- STONE BED KEY
- STAGING AREA
- STRAW WATTLES FOR SEDIMENT BARRIER

0 5 10 15
SCALE IN FEET

NO	REVISION DESCRIPTION	BY	APVD	DATE

Brown AND Caldwell | Jacobs
AND ASSOCIATED FIRMS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
PERMIT ISSUE REVIEW

NICHOLAS VANBUCKEREN
STATE OF WASHINGTON
51132
REGISTERED
PROFESSIONAL ENGINEER

DESIGNED/DRAWN: M. ZUERCHER	CHECKED: S. CLAYTON
PROJECT ENGINEER: K. HAMBLEN	SCALE: AS NOTED
DESIGN APPROVAL: J. PAULSON	PROJECT FILE NO:
PROJECT ACCEPTANCE: R. JOHNSON	CONTRACT NO:

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
COAL CREEK TRUNK MH25B PROTECTION

SITE PLAN AND TESC PLAN

DATE: JUNE 2020
DRAWING NO: CCT-C-10002
SHT NO 4 / TOTAL 6
REV NO: 0

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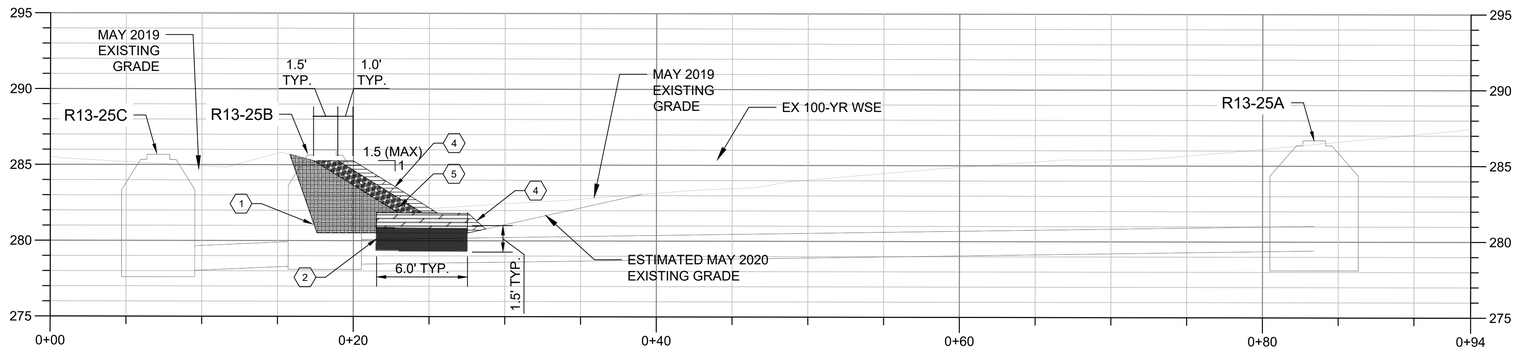


BANK STABILIZATION SECTION

SECTION A-A
SCALE: 1"=5'-0" STA 73+01

LEGEND:

- STONE TOE PROTECTION
- BANK FILL
- STONE BED KEY
- STONE BANK KEY
- STREAMBED COBBLES

KEY NOTES

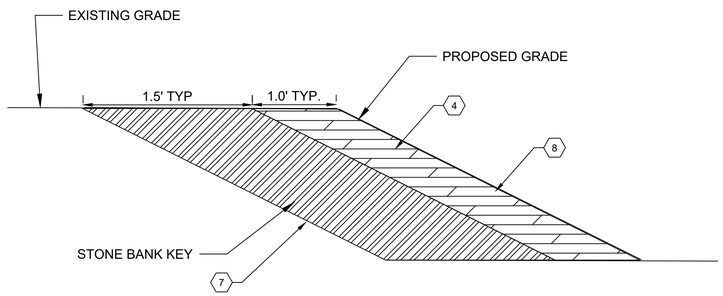
1. BANK FILL WITH COMPACTED COMMON BORROW (39 CY). LANDWARD EXTENT IS EXISTING BANK LOCATION. BOTTOM OF BANK FILL PER EXISTING BED LOCATION. WITHIN 5' OF MANHOLE, BANK FILL SHALL BE WITH STREAMBED COBBLES FOR AQUATIC HABITAT (WSDOT 2020 STD. 9-03.11, 4" STREAMBED COBBLES) (6 CY)
2. STONE BED KEY (WSDOT 2020 STD. 9-13.4, CLASS A ROCK FOR EROSION AND SCOUR PROTECTION). (19 CY)
3. BENDWAY WEIR (WSDOT 2020 STD. 9-03.11, 12 TOTAL TWO MAN STREAMBED BOULDERS). SHALL BE CONSTRUCTED WITH A SINGLE LAYER OF BOULDERS, EACH APPROX. 2' W X 2' L X 1' H. (2 CY)
4. STREAMBED COBBLES FOR AQUATIC HABITAT (WSDOT 2020 STD. 9-13.11, 4" STREAMBED COBBLES). SHALL BE PLACED IN A SINGLE LAYER 1.0' TYP. THICKNESS. (25 CY)
5. STONE TOE PROTECTION IS CONTINUOUS BEYOND MAINTENANCE HOLE FOOTPRINT. (WSDOT 2020 STD. 9-13.4, CLASS A ROCK FOR EROSION AND SCOUR PROTECTION). SHALL BE PLACED IN A SINGLE LAYER 1.5' TYP. THICKNESS. (10 CY).
6. BENDWAY WEIR ORIENTATION ANGLES TO BE TYP. 105 DEGREES AS MEASURED FROM PROPOSED BANK ALIGNMENT. DOWNSTREAM BENDWAY WEIR TO BE 100°. BENDWAY WEIR ANGLE (100 +/- 5°) SHOULD BE FIELD ADJUSTED IN COORDINATION WITH PROJECT REPRESENTATIVE TO ALLOW FOR PROPER FLOW RE-DIRECTION.
7. STONE BANK KEY SHALL EXTEND FROM ELEV OF EXISTING STREAMBED TO TOP OF BANK ELEV.
8. STONE BANK KEY PROPOSED FACE OF BANK WILL FACILITATE TRANSITION GRADING BETWEEN THE TYPICAL BANK STABILIZATION PROPOSED BANK SLOPES AND EXISTING BANK SLOPES OUTSIDE OF THE PROPOSED WORK AREA.

GENERAL NOTES

1. COORDINATE FINAL PLACEMENT OF MATERIALS WITH PROJECT REPRESENTATIVE.

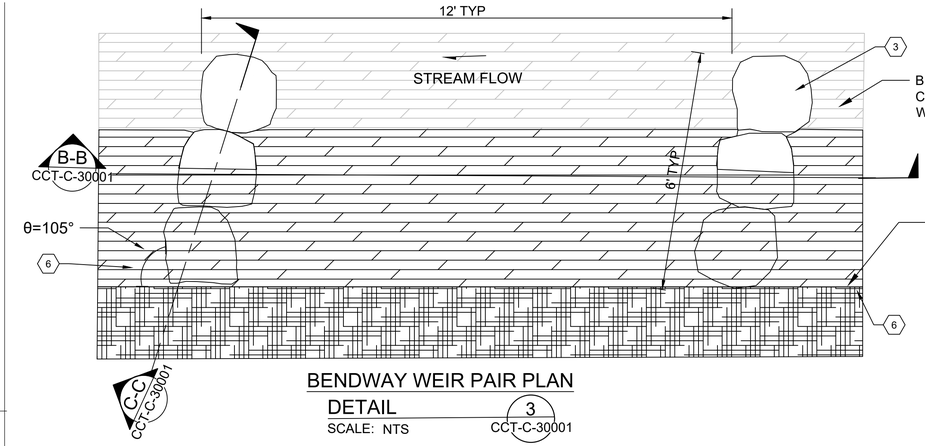
EXISTING CULVERTED STREAM CROSSING PHOTOS

DETAIL 1
SCALE: NTS CCT-C-10001



STONE BANK KEY

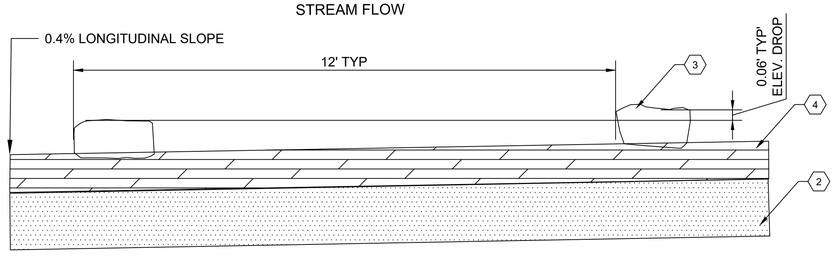
DETAIL 2
SCALE: NTS CCT-C-10002



BENDWAY WEIR PAIR PLAN

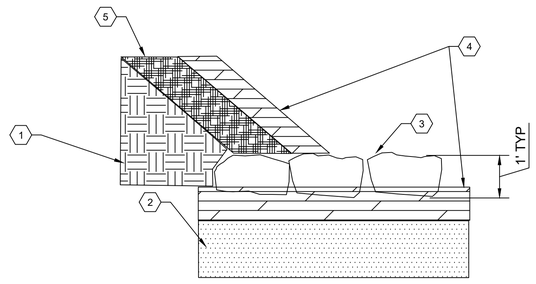
DETAIL 3
SCALE: NTS CCT-C-30001

STREAM FLOW



BENDWAY WEIR PAIR TYPICAL

SECTION B-B
SCALE: NTS CCT-C-30001



BENDWAY WEIR TYPICAL

SECTION C-C
SCALE: NTS CCT-C-30001

NO	REVISION DESCRIPTION	BY	APVD	DATE

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AND ASSOCIATED FIRMS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
PERMIT ISSUE REVIEW

NICHOLAS VANDEUCKEREN — STATE OF WASHINGTON — 51132 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED/DRAWN: M. ZUERCHER	CHECKED: S. CLAYTON
PROJECT ENGINEER: K. HAMBLEN	SCALE: AS NOTED
DESIGN APPROVAL: J. PAULSON	PROJECT FILE NO:
PROJECT ACCEPTANCE: R. JOHNSON	CONTRACT NO:

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
COAL CREEK TRUNK MH25B PROTECTION

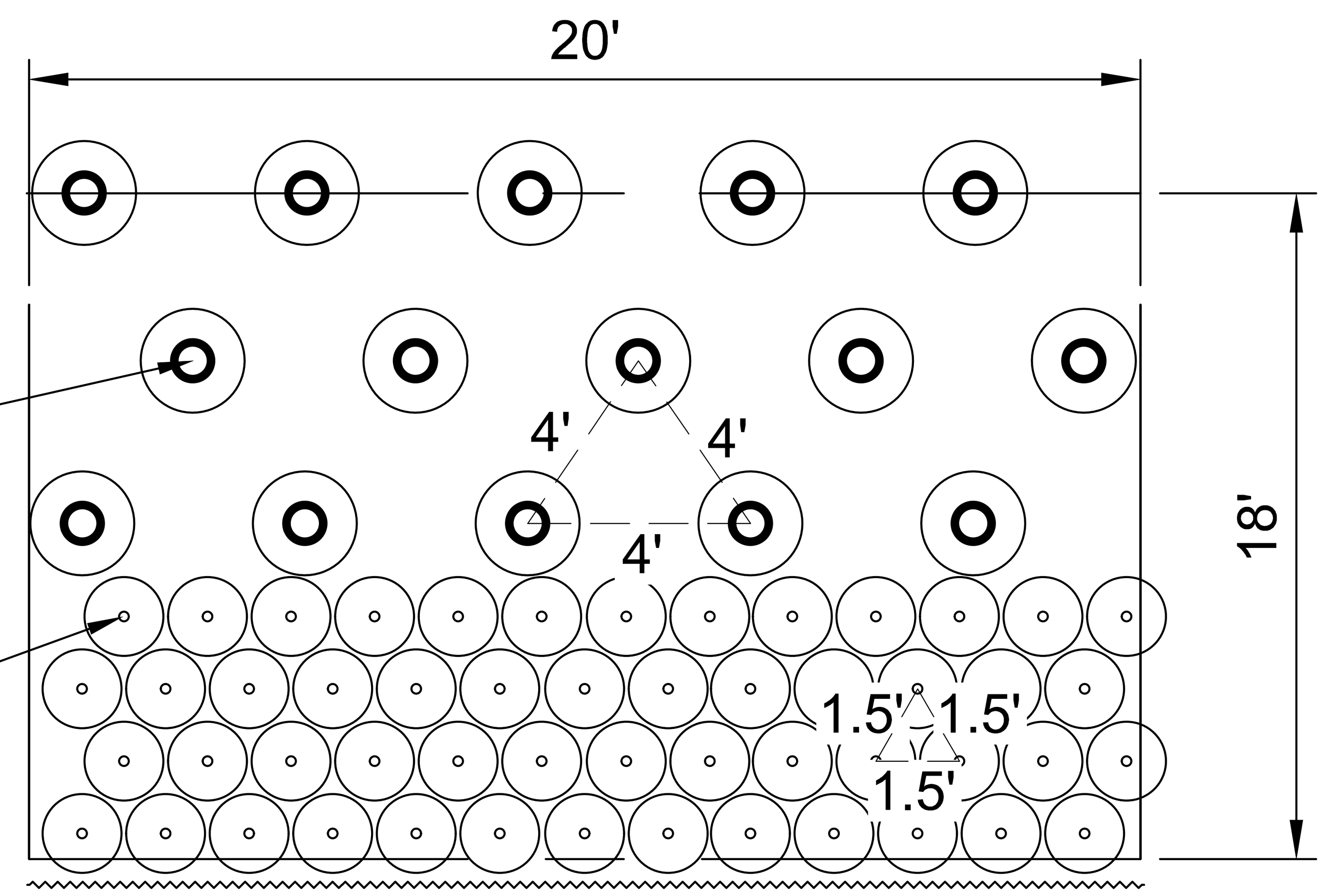
DETAILS

DATE: JUNE 2020
DRAWING NO: CCT-C-30001
SHT NO 5 / TOTAL 6 | REV NO: 0

TYPICAL PLANTING COMPOSITION IN A 360 SQUARE FOOT AREA

SHRUBS @ 4' O.C.; LAYOUT IN GROUPINGS OF 10 (MIN.) SAME SPECIES

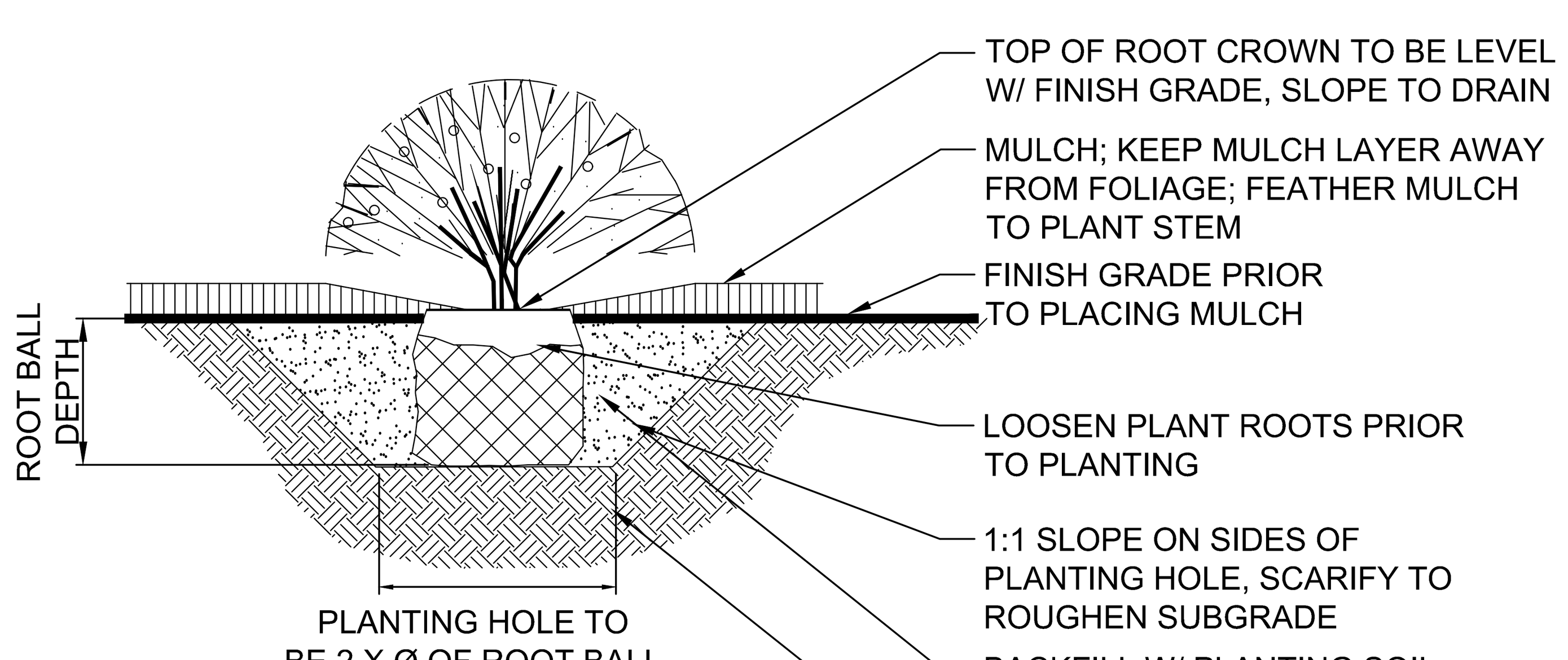
LIVE STAKES @ 1.5' O.C.; LAYOUT IN GROUPINGS OF 5 (MIN.) SAME SPECIES



PROVIDE IMPORTED PLANT MATERIALS PER THE SPECIES, SIZE, AND SPACING SHOWN TO VEGETATE 100% AREA OF PLANTING AREA. ADJUST SPACING OF PLANT MATERIALS PER EXISTING NATIVE PLANTS.

PLAN

STREAMBANK MIX						
TYPE	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**O.C. SPACING**	**RATE**	**REMARKS**
TREE	SALIX LUCIDA SSP. LASIANDRA	PACIFIC WILLOW	LIVE STAKE	18"	50%	MIN. 24" WITH 8 LIVE NODES
TREE	SALIX SITCHENSIS	SITKA WILLOW	LIVE STAKE	18"	50%	MIN. 24" WITH 8 LIVE NODES
SHRUB	CORNUS SERICEA	REDOSIER DOGWOOD	#1 CONT.	4'-0"	20%	
SHRUB	LONICERA INVOLUCRATA	BLACK TWINBERRY	#1 CONT.	4'-0"	20%	
SHRUB	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	#1 CONT.	4'-0"	20%	
SHRUB	RIBES LACUSTRE	SWAMP GOOSEBERRY	#1 CONT.	4'-0"	20%	
SHRUB	RUBUS SPECTABILIS	SALMONBERRY	#1 CONT.	4'-0"	20%	

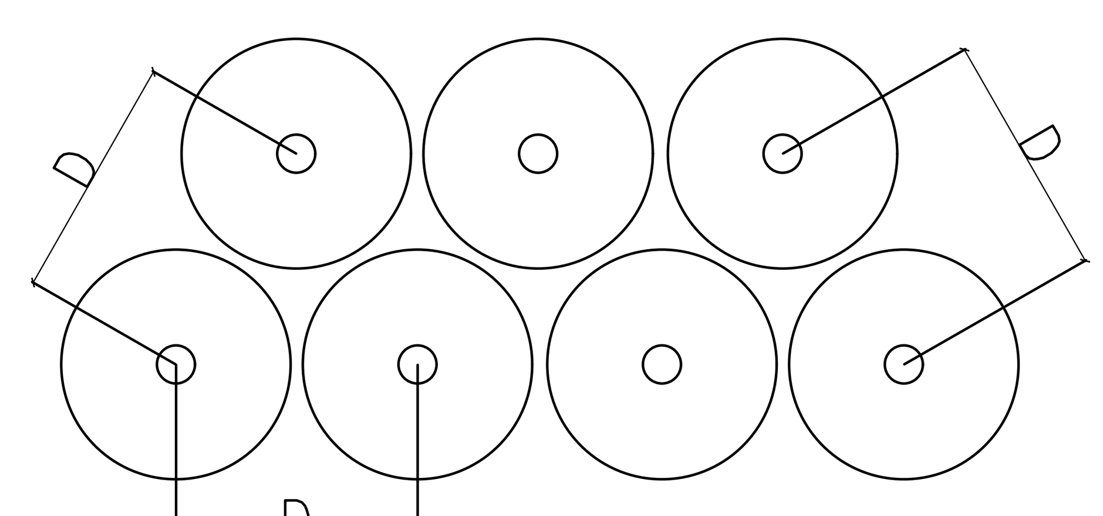


SECTION

NOTES:

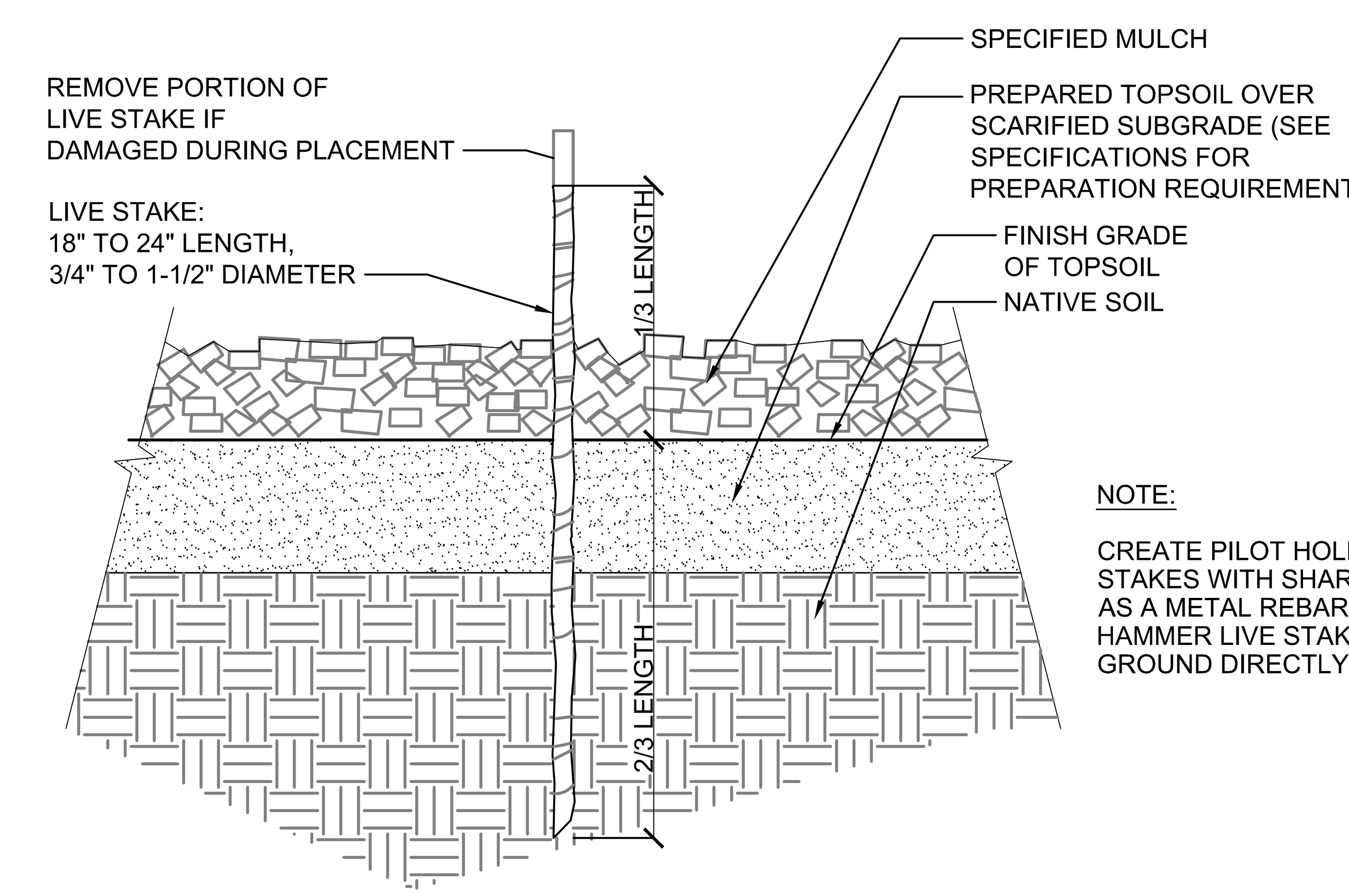
1. SEE SPECIFICATIONS FOR SOIL PLACEMENT DEPTH.

SHRUB PLANTING (1 / VAR)
SCALE: NTS



PLAN

LIVE STAKE PLANTING (2 / VAR)
SCALE: NTS



NOTE:

CREATE PILOT HOLES FOR LIVE STAKES WITH SHARP TOOLS SUCH AS A METAL REBAR. DO NOT HAMMER LIVE STAKE TO THE GROUND DIRECTLY.

LIVE STAKE INSTALLATION (3 / VAR)
SCALE: NTS

NO	REVISION DESCRIPTION	BY	APVD	DATE

Brown AND Caldwell : Jacobs
AND ASSOCIATED FIRMS

PRELIMINARY ISSUE DRAWING
INFORMATION ONLY
PERMIT ISSUE REVIEW

STATE OF WASHINGTON · GRACE W BERGMAN · NO. 1393 EXP. 11/11/20 · LICENSED LANDSCAPE ARCHITECT

DESIGNED/DRAWN: K. SWABB	CHECKED:
PROJECT ENGINEER: K. HAMBLEN	SCALE: AS NOTED
DESIGN APPROVAL: J. PAULSON	PROJECT FILE NO:
PROJECT ACCEPTANCE: R. JOHNSON	CONTRACT NO:

King County

DEPARTMENT OF NATURAL RESOURCES & PARKS
WASTEWATER TREATMENT DIVISION
COAL CREEK TRUNK MH25B PROTECTION

LANDSCAPE DETAILS AND SCHEDULE

DATE: JUNE 2020
DRAWING NO: **CCT-L-41000**
SHT NO 6 / TOTAL 6 REV NO: **0**

BORDER FILE EDITION: KCWTD-2015R0-Dsize-TB-Border
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PLOTTED: Jun 07, 2020-09:45:56pm By KS064216
XREFS: 25B-KCWTD-Dsize-TB-Border.dwg; CCT_MH25B_Protection.dwg
IMAGES:

King County

Department of Natural Resources and Parks ● Wastewater Treatment Division
Environmental and Community Services Section ● 201 South Jackson Street, MS KSC-NR-0505,
Seattle, WA 98104-3855 ● FAX 206-684-1278

DETERMINATION OF NONSIGNIFICANCE (DNS)

TITLE OF PROPOSAL: Coal Creek Trunk Maintenance Hole 25B Protection Project

DESCRIPTION OF PROPOSAL: The King County Wastewater Treatment Division (WTD) proposes to temporarily protect an existing sewer pipeline maintenance hole (MH-25B) that has become exposed due to erosion of the adjacent stream bank along a segment of Coal Creek. MH-25B is currently at risk of being damaged during a high streamflow event, which could result in pipe failure and sewage release into Coal Creek. WTD is therefore proposing to stabilize approximately 80 linear feet of adjacent stream bank by installing four bendway weirs (also known as rock barbs) to redirect streamflow, stone toe protection to prevent erosion, and streambed mix for salmon habitat. Construction is anticipated to last approximately two weeks, during which time the contractor will use a portion of the Red Cedar (also known as Upper West Coal Creek) Trailhead parking lot, and the gravel ramp to the sediment pond for construction staging. WTD proposes to temporarily close the parking lot and trail system within the construction work limits from Monday through Friday, and reopen them on the weekends with construction equipment, construction staging areas, and the work area near MH-25B fenced off. WTD is currently designing a larger project, the Coal Creek Trunk Upgrade Project, which is anticipated to enter construction within the next five years and will permanently remove MH-25B and the temporary protection measures proposed by this project.

LOCATION OF PROPOSAL: The project is located within a permanent WTD easement in the Coal Creek Natural Area (King County parcel 2124059001). The property is located at 5433 Coal Creek Parkway SE, Bellevue, WA 98006. MH-25B is located on the western bank of Coal Creek as it flows along the Upper West Coal Creek Trail.

Responsible Official:	Mark Isaacson
Position/Title:	Director, King County Wastewater Treatment Division
Address:	201 South Jackson Street, MS KSC-NR-0501 Seattle, WA 98104-3855
Date: 6/10/2020	**Signature:** DocuSigned by: Mark Isaacson CD09B21B45EF482...
Proponent and Lead Agency:	King County Department of Natural Resources and Parks Wastewater Treatment Division
Contact Person:	Grace Smith, Water Quality Planner King County Wastewater Treatment Division 201 South Jackson Street, MS KSC-NR-0505 Seattle, WA 98104 phone: 206-477-8651; e-mail: grace.smith@kingcounty.gov
Issue Date:	June 11, 2020

The State Environmental Policy Act (SEPA) lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

☒ This Determination of Nonsignificance is issued under WAC 197-11-340 (2); the lead agency will not act on this proposal for 19 days from the issue date. **Comments must be submitted by June 29, 2020.** Submit comments to Katherine Fischer, Environmental Programs Managing Supervisor, King County Wastewater Treatment Division, 201 South Jackson Street, MS KSC-NR-0505, Seattle, WA 98104-3855 or katherine.fischer@kingcounty.gov.

☒ The King County Wastewater Treatment Division has submitted an application to the City of Bellevue for a Critical Areas Land Use Permit, thus there is no administrative appeal of this DNS pursuant to RCW 43.21C.075, WAC 197-11-680, KCC 20.44.120 and King County Public Rule 7-4-1. The public rule may be viewed at http://www.kingcounty.gov/operations/policies/rules/utilities/put741pr.aspx, or contact Grace Smith at (206) 477-8651 or grace.smith@kingcounty.gov to obtain a copy of the rule.

[Statutory authority: RCW 43.21C.110. 84-05-020 (Order DE 83-39), §197-11-970, filed 2/10/84, effective 4/4/84.]

King County
Department of Natural Resources and Parks
Wastewater Treatment Division
King Street Center, KSC-NR-0505
201 South Jackson Street
Seattle, WA 98104

Environmental Checklist

for the

King County Wastewater Treatment Division Coal Creek Trunk Maintenance Hole 25B Protection Project

June 2020

Prepared in compliance with the State Environmental Policy Act (SEPA) (RCW 43.21C), the SEPA Rules (WAC 197-11), and Chapter 20.44 King County Code, implementing SEPA in King County procedures.

This information is available in accessible formats upon request at 206-477-5371 (voice) or 711 (TTY).

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

Coal Creek Trunk Maintenance Hole 25B Protection Project

2. Name of applicant:

King County Wastewater Treatment Division (WTD), Department of Natural Resources and Parks (DNRP)

3. Address and phone number of applicant and contact person:

King County Wastewater Treatment Division
201 South Jackson Street, MS: KSC-NR-0505
Seattle, WA 98104-3855

CONTACT:
Grace Smith, Environmental Planner
Telephone: 206-477-8651
Email: grace.smith@kingcounty.gov

4. Date checklist prepared:

June 2020

5. Agency requesting checklist:

Wastewater Treatment Division, Department of Natural Resources and Parks, King County

6. Proposed timing or schedule (including phasing, if applicable):

This work is scheduled to take place in 2020, during the U.S. Army Corps of Engineers (USACE) and Washington Department of Fish and Wildlife (WDFW) in-water work window, anticipated to be between July 1 and August 31.

7. Do you have any plans for future additions, expansions, or further activity related to or connected with this proposal? If yes, explain.

The proposed project site is located within the area of a related WTD capital project, the Coal Creek Trunk Upgrade Project, which is currently in design and is anticipated to be constructed within the next five years. That project would replace a large portion of the Coal Creek Trunk pipeline in this area with a new pipe located away from Coal Creek. The future project would also remove several of the old maintenance holes (MHs), including maintenance hole 25B (MH-25B) that will be protected by this

project. The purpose of the current project is to temporarily protect MH-25B which has become exposed due to erosion of the stream bank and streambed. MH-25B and the proposed temporary protection would be removed when the Coal Creek Trunk Upgrade Project is implemented.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The following environmental documents have been prepared for this project by Jacobs Engineering Group Inc. (Jacobs):

- Joint Aquatic Resources Permit Application (JARPA)
- Biological Evaluation (BE)
- Critical Areas Memorandum

In addition, the following documents have been prepared for the future Coal Creek Trunk Upgrade Project (see Section A.7. of this checklist):

- Jacobs prepared the following environmental documents:
  - JARPA
  - BE
  - Critical Areas Report
  - Tributary 2 and Tributary 0272 Fish Passage Crossing Concept Memo
- Environmental Science Associates (ESA) prepared the following documents regarding cultural resources:
  - Cultural Resources Assessment Report
  - Archaeological Resources Monitoring Plan and Inadvertent Discovery Plan

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

WTD recently applied for a permit from the USACE for the future Coal Creek Trunk Upgrade Project. This permit application is pending.

10. List any government approvals or permits that will be needed for your proposal, if known.

WDFW

- Hydraulic Project Approval

USACE

- Department of the Army (DA) Permit, Clean Water Act (CWA) Section 404
- Endangered Species Act (ESA) Compliance (Section 7)
- National Historic Preservation Act (NHPA) Consultation (Section 106)

City of Bellevue

- Critical Areas Land Use Permit
- Clear and Grade Permit

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

King County WTD proposes to conduct a project during the summer of 2020 to protect a maintenance hole adjacent to Coal Creek that has become exposed due to erosion of the stream bank and streambed, and is at risk of being damaged (see Figure 1 for site photo). WTD conducts regular monitoring of the condition of its assets, including MH-25B, along the Coal Creek Trunk sanitary sewer. After high flows in winter 2019 to spring 2020, the WTD Conveyance and Inspection team determined that continued erosion along the Coal Creek stream bank may fully expose MH-25B without immediate protection of the MH. If MH-25B were to be fully exposed, it would increase the risk of pipe failure and sewage release into Coal Creek, as well as the possibility that some of the stream's waters would be diverted into the damaged pipe. WTD is proposing to temporarily protect MH-25B and stabilize approximately 80 linear feet of adjacent stream bank from further erosion.

WTD is currently planning a larger project, the Coal Creek Trunk Upgrade Project, which would permanently remove MH-25B, along with the associated stream crossing of the existing sewer pipe. The current project's temporary protection measures would be removed in the course of the future project.

King County WTD proposes to install four bendway weirs (also known as rock barbs) along the left stream bank to redirect the thalweg (center of the main channel) of Coal Creek away from the left stream bank and towards the center of the existing stream. Left bank and right bank refer to the stream bank when facing downstream. To prevent erosion, stone toe protection will also be installed around the bendway weirs and partially into the stream channel. Appropriately-sized, clean, and water-rounded gravels will then be placed on the stone toe protection surface to provide suitable gravels for salmonid habitat.

WTD compared impacts associated with completing the temporary bank stabilization work in the wet (within the stream) and working in the dry (temporarily diverting the water from the stream). To reduce streambed impacts, WTD proposes to perform the work in the wet by using temporary mats along the soil slopes and partially in the stream channel. Using mats will reduce compaction as construction equipment accesses the left bank. The contractor will also minimize daily crossings by coordinating on the timing of proposed actions during safety briefings at the start of each work day.

The contractor will use a portion of the Red Cedar (also known as Upper West Coal Creek) Trailhead parking lot, and the gravel ramp to the sediment pond, for construction staging. The contractor will then use heavy equipment no wider than four feet, such as a mini track loader, to transport materials from the staging areas to the construction site. For public safety WTD proposes to temporarily close the parking lot and trail system within the construction work limits, including the trail that passes beneath Coal Creek Parkway SE to the parking lot, Monday – Friday. The parking lot and the trail system will be reopened on the weekends with construction equipment, construction staging, and the work area near MH-25B fenced off.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

MH-25B is located within a permanent WTD easement in the Coal Creek Natural Area (King County parcel 2124059001) near the Upper West Coal Creek Trail, along Coal Creek Parkway SE. The property is located at 5433 Coal Creek Parkway SE and is owned and managed by the City of Bellevue's Parks and Recreation Department. MH-25B is on the left bank of Coal Creek as it flows along the Upper West Coal Creek Trail.

The project is located within the Coal Creek Basin (6th Field Hydrologic Unit Code 17110012) and within the Coal Creek Basin of Water Resource Inventory Area (WRIA) 8, the Cedar/Sammamish Watershed, located in Section 21 of Township 24 North, Range 5 East, Willamette Meridian.

See Figure 2 for a location map of the project area.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____.

b. What is the steepest slope on the site? (approximate percent slope)?

Slopes greater than 40% are present on the project site.

c. What general types of soils are found on the site? (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The USDA Natural Resources Conservation Service Web Soil Survey identifies the soils in the project area as Alderwood and Kitsap soils.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There are no seismic hazards, landslide hazards, coal mine hazards, or geologic hazard buffers within the proposed work limits.

A steep slope area extends across the trail in a portion of the project area. Work through this area will be limited to materials transported using mini track loaders and mini excavators that will stay within the footprint of the existing trail and not cause impacts to the steep slope. Similarly, the location of the proposed bendway weirs and stone toe protection are just outside and below another steep slope area, on the opposite side of the stream (the left stream bank). Since project actions along this side of the stream are limited to vegetation clearing and fill, with limited excavation required to place the protection materials, no steep slope impacts are anticipated at this location either.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Approximately 160 cubic yards of fill will be brought to the site to restore the gravel trail surface to existing conditions and to apply mulch to restoration areas.

Please see Section B.3.a.3 of this checklist for a description of the proposed fill and excavation that will occur on the bank of Coal Creek and within the Coal Creek streambed.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

The installation of the proposed MH protection may cause minor localized erosion as the flow of the stream adjusts. The anticipated localized stream bank and streambed erosion that may occur as a result of this project is less than the erosion anticipated if no action is taken.

Erosion could occur as a result of vegetation removal, but is not anticipated because only minimal clearing of vegetation will be required to access the site. All areas cleared of vegetation will be restored to their previous conditions or better.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

None

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

WTD would minimize impacts to earth by implementing the following:

- The duration of construction will be the minimum necessary to complete the temporary stabilization, and is anticipated to last approximately two weeks.
- Daily construction equipment and personnel crossings through the Coal Creek streambed are necessary to access MH-25B, but they will be minimized to the greatest extent possible by coordinating on activity timing during safety coordination briefings each day.
- WTD will monitor turbidity throughout construction activities to ensure that the temporarily elevated turbidity levels stay below the maximum limits within the mixing zone as set forth in state water quality and salmon habitat regulations (WAC 173-201A-210 and WAC 173-201A-400).
- The work will be performed in the wet by using temporary mats along the soil slopes and partially in the stream channel. Using mats will reduce compaction as construction equipment accesses the left bank, and also minimize turbidity during stream crossings.
- No trees will be removed as part of this project.
- Understory and ground cover vegetation clearing will be minimized to the greatest extent possible.
- Construction access will be limited to the Red Cedar Trailhead parking lot and the existing compacted Upper West Coal Creek Trail, except for a small segment needed to cross from the trail on the right bank to MH-25B on the left bank of Coal Creek.
- Construction staging will be limited to existing impervious surfaces.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Short-term, minor air quality impacts from vehicle exhaust, such as from the use of a mini track loader to transport materials from the staging areas to the construction site, are possible during construction activities. Vehicle exhaust will also be produced following construction, during regular site visits to monitor vegetation establishment and stability of the structure (see Section B.14.f. of this checklist).

A King County Greenhouse Gas Emissions Worksheet is attached.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Engine idling will be minimized during construction activities.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

The project will occur on the left bank of Coal Creek, which is a Type F perennial stream, flowing into Lake Washington. Three tributaries to Coal Creek, all Type F perennial streams, are present within the work limits as closed-pipe culverts crossing the proposed construction access route and within the proposed staging areas in the existing Red Cedar Trailhead parking lot and along the existing Upper West Coal Creek Trail. The three tributaries and their associated buffers will not be impacted by access or construction staging for this project.

Six wetlands exist in proximity of the project area. Five of the wetlands are rated Category III and one wetland is rated Category II.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes. The project will require working along the left bank of Coal Creek, and within the stream itself. Approximately 1,200 square feet of the Coal

Creek streambed will be temporarily disturbed while a small excavator and personnel on foot cross Coal Creek and access MH-25B on the left bank.

Work will take place within the combined buffers of three wetlands, as well as the stream buffer of Coal Creek. Approximately 1,800 square feet of combined wetland and stream buffer will be temporarily disturbed during construction.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill or excavation will occur for equipment and personnel to access MH-25B on the left bank of Coal Creek. Approximately 40 cubic yards of excavation will be required to install the bendway weirs, stone toe protection, and streambed mix (gravel).

To stabilize the stream bank surrounding the MH, the eroded area behind MH-25B will be refilled with approximately 30 cubic yards of a mixture of clean imported streambed mix and excavated soils. Up to four bendway weirs consisting of two man-sized boulders will be installed along the left bank of Coal Creek, adding approximately two cubic yards of fill. Approximately 30 cubic yards of stone toe protection will be added to the upstream and downstream sides of the bendway weirs, as well as in between each bendway weir. The bendway weirs were selected to train the thalweg away from the left bank. They will be field-fitted during construction based on thalweg observations. Approximately 20 cubic yards of a streambed mix comprised of appropriately-sized, clean, and water-rounded gravels will then be placed on the stone toe protection surface to provide suitable gravels for salmonid habitat. These temporary bank stabilization improvements will remain in Coal Creek for approximately 5 years or until the Coal Creek Trunk Upgrade Project is complete.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

This project will not involve any surface water withdrawals or diversions. WTD compared impacts associated with completing the bank stabilization work with and without temporarily diverting water flow from the streambed. To reduce streambed impacts, WTD proposes to perform the work in the wet, without temporarily diverting the stream. This will be accomplished by using temporary mats along the soil slopes and partially in the stream channel to reduce compaction as construction equipment

accesses the left bank. Using mats will also help to minimize turbidity caused by stream crossings.

5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

The proposed work will occur in and adjacent to the mapped 100-year floodplain of Coal Creek. WTD is in direct communication with the City of Bellevue floodplain administrator regarding any temporary floodplain conditions anticipated by the proposed project.

6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No

b. Ground Water:

1) **Will ground water be withdrawn, from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses, and approximate quantities withdrawn from the well. Will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

No ground water will be withdrawn and no water will be discharged to ground water.

2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No waste material will be discharged into the ground.

c. Water Runoff (including storm water):

1) **Describe source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Natural patterns of runoff resulting from rainfall will not be affected by this project.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

The project will direct the thalweg of Coal Creek away from the left stream bank, where the bank is currently eroding and leaving MH-25B exposed and at risk. However, this will not alter drainage patterns in the vicinity.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

With the exception of redirecting the flow of Coal Creek away from MH-25B, this project will not impact surface waters in the project area. All materials put in place to stabilize MH-25B are temporary and will be removed with the MH during the Coal Creek Trunk Upgrade Project within approximately 5 years.

4. Plants

a. Check or circle types of vegetation found on the site:

_X_ **deciduous tree: alder, maple, aspen, other**
_X_ **evergreen tree: fir, cedar, pine, other**
_X_ **shrubs**
_X_ **grass**
___ pasture
___ crop or grain
___ Orchards, vineyards, or other permanent crops
_X_ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**
_X_ **water plants: water lily, eelgrass, milfoil, other**
___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

To access MH-25B from the trail on the right bank of Coal Creek, contractors will need to clear approximately 1,800 square feet of vegetation.

c. List threatened or endangered species known to be on or near the site.

There are no threatened or endangered plant species known to be on or near the project site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

All areas cleared of vegetation will be revegetated with native plantings to existing conditions or better.

e. List all noxious weeds and invasive species known to be on or near the site.

English ivy (*Hedera helix*), Reed canarygrass (*Phalaris arundinacea*), and Himalayan blackberry (*Rubus armeniacus*) can be found in the project vicinity.

5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

birds: hawk, heron, eagle, songbirds, other: _____

mammals: deer, bear, elk, beaver, other: cougar, raccoon

fish: bass, salmon, trout, herring, shellfish, other: _____.

b. List any threatened or endangered species known to be on or near the site.

The following three species are listed as threatened under the Endangered Species Act (ESA) and are likely to occur within the project area, though critical habitat for these species is not present in Coal Creek:

- Coastal-Puget Sound distinct population segment (DPS) bull trout (*Salvelinus confluentus)*
- Puget Sound evolutionarily significant (ESU) Chinook salmon (*Oncorhynchus tshawytscha*)
- Puget Sound DPS steelhead trout (*Oncorhynchus mykiss*).

In addition, the following ESA-listed species have the potential to occur within the project area, but it is unlikely due to a lack of suitable habitat and/or the project area being outside of their known range:

- Western DPS gray wolf (*Canis lupus*)
- North American wolverine (*Gulo luscus*)
- Marbled murrelet (*Brachyramphus marmoratus*)
- Streaked horned lark (*Eremophila alpestris strigata*)
- Yellow-billed cuckoo (*Castilleja levisecta*)

c. Is the site part of a migration route? If so, explain.

Coal Creek is used as a migration route by steelhead trout and Chinook and coho salmon.

The site is within the Pacific Flyway and numerous migratory bird species likely inhabit the Coal Creek Natural Area during migratory seasons.

d. Proposed measures to preserve or enhance wildlife, if any:

The project aims to preserve wildlife by protecting MH-25B from further risk, and thus reducing the possibility of pipe failure and sewage release into Coal Creek.

The project would minimize negative impacts to the ESA-listed species above by implementing the following:

- Work will be limited to the approved USACE and WDFW in-water work window, anticipated to be between July 1 and August 31 of 2020. This window is also when the water level is lowest in Coal Creek.
- The duration of construction will be the minimum duration necessary to complete the temporary stabilization, and is anticipated to last approximately two weeks.
- Qualified biologists will set block nets and remove fish from the reach in advance of construction.
- A biological monitor will be present for the duration of the work.

e. List any invasive animal species known to be on or near the site.

The Bullfrog (*Lithobates catesbeianus*) may be present in the project area, as the Washington State Invasive Species Council lists this invasive species as present in freshwater habitats such as streams, ponds, wetlands, and ditches in the lowlands of Washington. In addition, non-native songbirds are likely present in the Coal Creek Natural Area.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, woodstove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Not applicable for this project.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No, this project will have no effect on solar energy use by adjacent properties.

c. What kind of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Not applicable for this project.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There are no environmental health hazards posed by this project. By protecting MH-25B which is currently at risk, this project will reduce the likelihood of pipe failure and release of sewage into Coal Creek in the future, which would be an environmental health hazard.

1) Describe any known or possible contamination at the site from present or past uses.

There were active coal mines in the project vicinity during the nineteenth century, but there is no known resulting contamination at the project site.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

None

4) Describe special emergency services that might be required.

None

5) Proposed measures to reduce or control environmental health hazards, if any:

The purpose of this project is to protect MH-25B which is currently exposed and at risk of being damaged. Completing this project will reduce

the likelihood of pipe failure and release of sewage into Coal Creek in the future.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

There is light noise from traffic on nearby Coal Creek Parkway SE, but this noise will not impact the project.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Construction will last approximately two weeks and will produce short-term intermittent noise from the use of small heavy machinery, such as a track loader, an excavator, and a dump truck. Construction will take place Monday – Friday, and will only occur during daylight hours.

3) Proposed measures to reduce or control noise impacts, if any:

To minimize the potential for construction noise impacts to the aquatic environment, construction activities will avoid impulsive noises, such as pile driving, jackhammering, or blasting, below the Ordinary High Water Mark of Coal Creek. In-water construction activities will occur only during the approved in-water work window and affected reaches of the creek will have fish removed in advance of in-water construction activities. Therefore, in-water noise levels are considered insignificant.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The property is owned and managed by the City of Bellevue's Parks and Recreation Department and is used as a recreational area with trails for hiking. For the safety of park users, the trail system near the project area and the Red Cedar Trailhead parking lot will be temporarily closed during construction (approximately two weeks in duration). The trails and parking lot will be reopened on the weekends with the construction equipment, construction staging, and work area fenced off. The surrounding properties are residential neighborhoods and will not be converted to other uses as a result of this project.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

There are no working farm lands or forest lands within the project area.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

There are no working farm or forest land business operations near the project area.

c. Describe any structures on the site.

There are no structures on the site.

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

The property is zoned single family.

f. What is the current comprehensive plan designation of the site?

The current comprehensive plan designation of the property is Public Facility/Single Family Low Density.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

The City of Bellevue regulates streams, wetlands, geologic hazards areas, habitat associated with species of local importance, and frequently flooded areas as critical areas. The following critical areas are located within the project area:

- Streams
    - The project will occur on the bank of Coal Creek, which is a Type F perennial stream, flowing into Lake Washington. Three tributaries to Coal Creek, all Type F perennial streams, are present within the work limits as closed-pipe culverts crossing the proposed construction access route and within the proposed staging area in the existing Red Cedar Trailhead parking lot. The three tributaries and their associated buffers will not be temporarily impacted by access or staging for this project.

- Wetlands
    - Six wetlands, five rated Category III and one rated a Category II, exist in the proximity of the project area. None of the wetlands will be impacted by this project. The combined buffers of three wetlands will be temporarily impacted.

- Geologic Hazard Areas
    - There are no seismic hazards, landslide hazards, coal mine hazards, or geologic hazard buffers within the proposed work limits.
    - A steep slope area extends across the trail in a portion of the project area. Work through this area will be limited to materials transported using mini track loaders and mini excavators that will stay within the footprint of the existing trail and will not impact this steep slope. Another steep slope is located on the opposite side of Coal Creek (the left stream bank), above the proposed bendway weirs and stone toe protection. Project actions along this side of the stream are limited to vegetation clearing and fill, with limited excavation required to place the protection materials. Therefore, no steep slope impacts are anticipated at this location either.

- Habitat Associated with Species of Local Importance
    - The project area contains habitat associated with multiple species of local importance. Pileated woodpecker, great blue heron, red-tailed hawk, Chinook salmon, and coho salmon have all been documented within the project area. Additional species of local importance are potentially present in the project area, due to the presence of snags and a high amount of habitat connectivity between wetlands, streams, and upland vegetation. These species include:
        - Bald eagle (*Haliaeetus leucocephalus*)
        - Vaux's swift (*Chaetura vauxi*)
        - Merlin (*Falco columbarius*)
        - Purple martin (*Progne subis*)
        - Osprey (*Pandion haliaetus*)

- Green heron (*Butorides striatus*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)

- Frequently Flooded Areas
  - The project area is located within and adjacent to the mapped 100-year floodplain for Coal Creek.

i. Approximately how many people would reside or work in the completed project?

No people will reside within the completed project site. Following construction completion, WTD staff will continue to visit the site regularly to monitor the establishment of vegetation and the stability of the structure.

j. Approximately how many people would the completed project displace?

No people will be displaced as a result of this project.

k. Proposed measures to avoid or reduce displacement impacts, if any:

No measures are needed.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This project is compatible with existing and projected land uses. Therefore, no measures are proposed.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

No agricultural or forest lands of long-term commercial significance are near the project area. Therefore, no measures are proposed.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No units will be provided as part of this project.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No units will be eliminated as part of this project.

c. Proposed measures to reduce or control housing impacts, if any:

No measures are needed.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennae; what is the principal exterior building material(s) proposed?

No structures are proposed as part of this project.

b. What views in the immediate vicinity would be altered or obstructed?

No views will be altered or obstructed as a result of this project.

c. Proposed measures to reduce or control aesthetic impacts, if any:

No measures are needed.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

No light or glare will be produced by this project.

b. Could light and glare from the finished project be a safety hazard or interfere with views?

No

c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

No measures are needed.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

The project is located within the Coal Creek Natural Area, which is a popular city park frequented by local residents. Visitors of the park use the hiking trails and enjoy the natural scenery and wildlife that inhabit the area.

b. Would the proposed project displace any existing recreational uses? If so, describe.

During construction activities, which will last approximately two weeks, the trail system within the work area limits will be closed Monday – Friday, as well as the trail that passes beneath Coal Creek Parkway SE and enters the Red Cedar Trailhead parking lot. During construction the Red Cedar Trailhead parking lot will also be closed while it is used for construction staging. The trails and parking lot will be reopened on the weekends, with the construction equipment, construction staging, and work area fenced off for public safety.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

In an effort to minimize impacts on recreation, the trail system and parking lot will be reopened on the weekends. The project will be completed as quickly as possible, with an anticipated construction duration of approximately two weeks. WTD will post signs at trail entrances and within the trail system, notifying the public of trail closures ahead.

13. Historic and Cultural Preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

There are no archaeological sites or above-ground historic resources within or adjacent to the project area.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

The Coal Creek Natural Area was historically used for coal mining, and two coal mines are located approximately one half mile and one mile from the project area. This project will not impact either coal mine.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation

with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The project was screened by the King County Historic Preservation Program (KC HPP) for the presence of cultural resources within the project area. These screenings included a review of historic registers, databases including the Washington Department of Archaeology and Historic Preservation's (DAHP) records database (WISAARD), historic maps and reports, and predictive GIS modeling. In December 2019, Environmental Science Associates (ESA) completed a Cultural Resources Assessment for WTD's future Coal Creek Trunk Upgrade Project. ESA's assessment included a literature review, which covered the project area of the current proposal.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

No effects to cultural resources are expected as a result of this project. An Inadvertent Discovery Plan (IDP) will be prepared in advance of construction. The IDP will outline the procedures to follow, should archaeological resources be discovered during construction. Affected Tribes, as well as any other potentially affected parties, will be invited into consultation under Section 106 of the NHPA. The project will comply with any conditions or mitigation measures imposed on it through that process.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area, and describe proposed access to the existing street system. Show on site plans, if any.

The project site is adjacent to and accessible via Coal Creek Parkway SE.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The project site is not directly served by public transit. The nearest transit stop is located approximately 0.8 miles away.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

The completed project will not alter the number of parking spaces available.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

This project does not involve any new roads or improvements to existing roads.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The project will not occur in the immediate vicinity of water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Following construction, approximately one vehicle will visit the site twice per month to monitor the establishment of vegetated areas. In addition, approximately one vehicle will visit the site annually and following storm events to monitor the stability of the protection structure and MH-25B.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No, this project will not interfere with, affect or be affected by the movement of agricultural and forest products on roads in the area.

h. Proposed measures to reduce or control transportation impacts, if any:

No transportation impacts are expected as a result of the project. Therefore, no measures are proposed.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No, this project will not increase the need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any:

No measures are proposed.

16. Utilities

a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other_____

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No utilities are proposed for this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Date Submitted: June 8, 2020

Katherine Fischer
Environmental Programs Managing Supervisor
King County WTD, DNRP

Figure 1. Photo of Maintenance Hole 25B taken February, 2020.

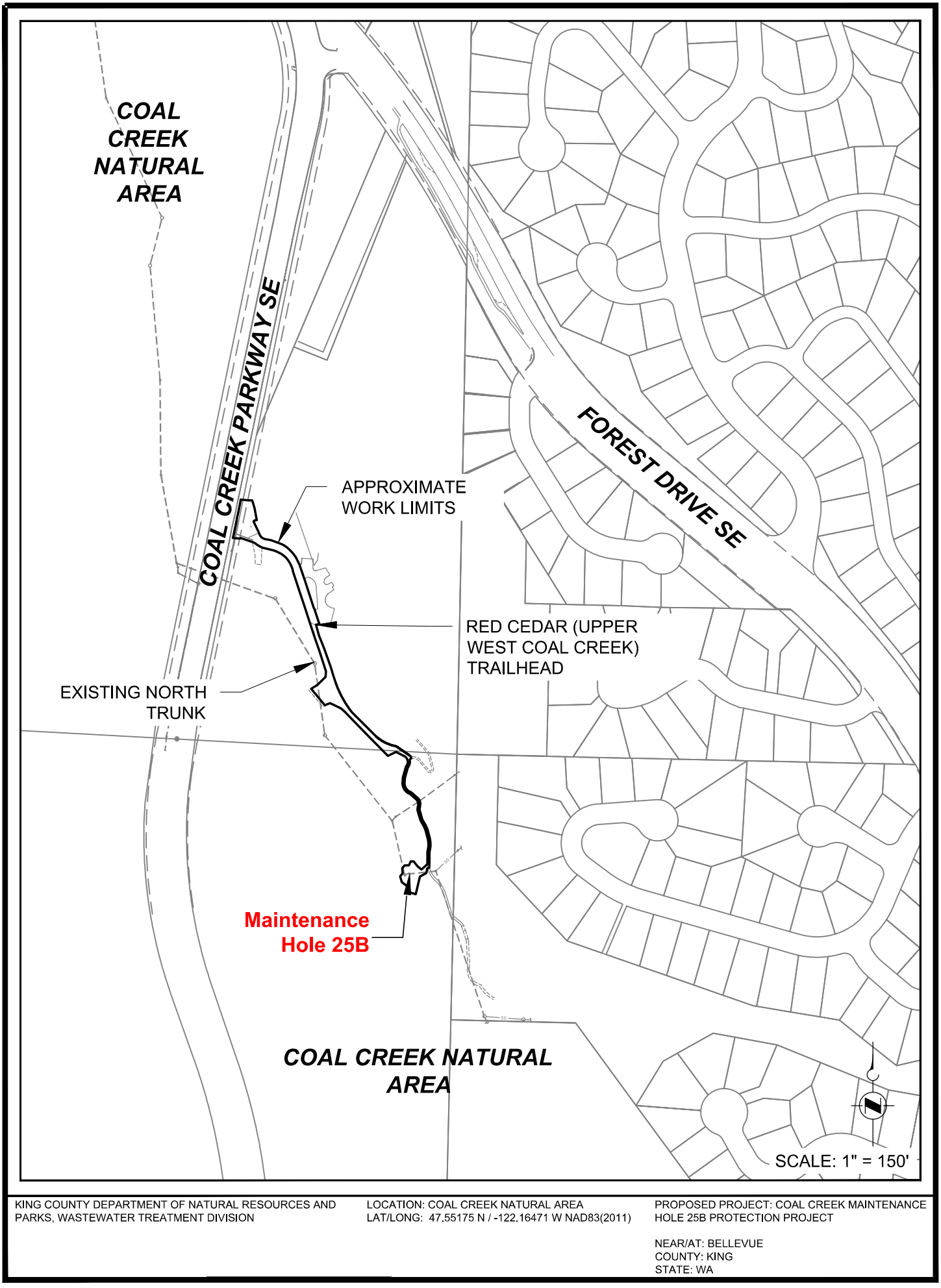

Figure 2. Location Map

King County Greenhouse Gas Emissions Calculator:
Coal Creek Trunk Maintenance Hole 25B Protection Project SEPA DNS

Instructions

Use this calculator to quantify emissions from energy use, water use, and vehicle miles traveled, for either the construction phase **or** the ongoing operations phase of the project. The calculator will convert any data entered into metric tons of CO2 equivalent (MTCO2e). Therefore, all data **must** be entered in the correct input unit (see 'input unit' column). If your data is in different units than those in the calculator, utilize the conversion tables to the right.

For construction, enter the total amount of fuel and other energy sources used while constructing the project, as well asthe total amount of water used.
For ongoing operations, enter the estimated electricity and/or fuel that the project will use on an annual basis, and the expected lifetime of the project. Enter estimated annual water use in the same way.

Fuel use vs. VMT for ongoing project operations: if you do not have an estimate for transportation fuel use, substitute vehicle miles traveled (VMT). Enter the total annual miles traveled and the anticipated lifetime of the project in years. Do not enter both VMT and transportation fuel use for ongoing project operations.

Project Input	Data Input		Input Unit	Output		Additional Calculations
Energy Use	**Construction**	**Operations**		**MTCO2e**		**Project Life (years)**
enter in the amount of electricity or fuel used by project phase						
Electricity			kWh	0	0	
Gasoline[1]	60		gallons	0.6798	0	
Diesel[1]	1,080		gallons	13.4784	0	
Natural Gas			therms	0	0	
Heating Oil			gallons	0	0	
Jet Fuel			gallons	0	0	
Steam			Mlb	0	0	
Propane			gallons	0	0	
Energy Use--Biofuels						**Project Life (years)**
Green Electricity[2]			kWh	0	0	
Biogenic Sources[3]						
Biodiesel[1]			gallons	0	0	
Landfill gas or Biogas[2]			MMBtu	0	0	

Project Input	Data Input	Input Unit	Output		
Vehicle Miles Traveled (VMT)			**MTCO2e**		**Project Life (years)**
enter the estimated annual VMT for the project	550	miles	0.289837209	0	5

Project Input	Data Input	Input Unit	Output		
Water Use ('watergy')			**MTCO2e**		**Project Life (years)**
enter the amount of water used by project phase		gallons	0	0	

1. Lifecycle GHG Emissions (includes both combustion and fuel production)
2. Green electricity and biogas are considered carbon-neutral energy sources; CO2e output is zero
3. Please separately calculate and note any biogenice sources of greenhouse gas emissions

Conversions	
kWh	MWh
1	0.001

kg	Metric Tons
1	0.001

therm	MMBtu
1	0.1

Mlb	MMbtu
1	1.095

CCF	gallon
1	748

King County Greenhouse Gas Emissions Calculator:
Coal Creek Trunk Maintenance Hole 25B Protection Project SEPA DNS

	Project or Tool Input	Output		Additional Calculations	Final Output
a	**Energy**	**MTCO2e**		**Project Life (years)**	**MTCO2e**
		Construction phase	14		14.16
		Operations phase	-	0	-
b	**Water**	**MTCO2e**		**Project Life (years)**	**MTCO2e**
		Construction phase	-		-
		Operations phase	-	0	-
c	**Transportation (VMT)**				**MTCO2e**
	KC Employee Commute Climate Pollution Map	**Av MTCO2e**		**# employees**	
			-	0	-
	KC Residential Transportation Climate Pollution Map	**Av MTCO2e**		**# households**	**MTCO2e**
			-	0	-
d	**Embodied Energy**	**MTCO2e**			**MTCO2e**
			-		-
1	**Waste Reduction Model (WARM)**	**MTCO2e**			**MTCO2e**
			-		-
2	**URBEMIS**	**lbsCO2/day**		**# project days**	**MTCO2e**
			-	0	-
3	**Roadway Construction Emissions Model**	**tonsCO2/project**			**MTCO2e**
			-		-
4	**Build Carbon Neutral**	**MTCO2**			**MTCO2e**
			-		-
5	**Tree Carbon Calculator**	**kgCO2**		**# trees**	**MTCO2e**
			-	0	-
6	**Reforestation Calculator**	**MTCO2e**			**MTCO2e**
			-		-

NET Project Impact
MTCO2e
14.16

Conversions	
lbs	Metric Tons
0.00045359237	1
Short Tons	Metric Tons
0.90718474	1
grams	Metric Tons
0.000001	1
kg	Metric Tons
0.001	1